

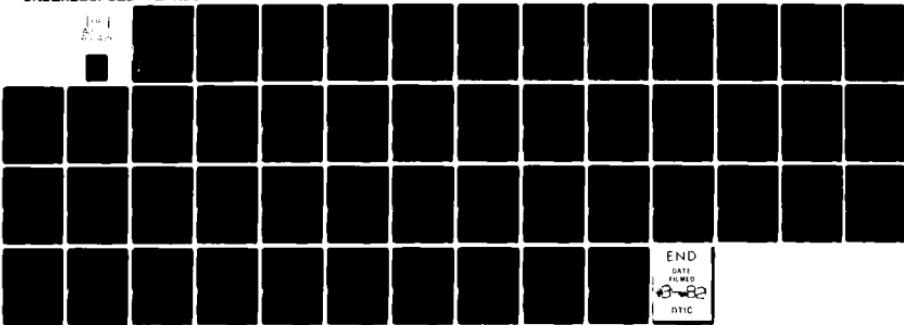
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ARMY ELECTRONICS RESEARCH AND DEVELOPMENT COMMAND WS--ETC F/6 4/2  
20003A ASSAULT BREAKER, MISSILE NUMBER 0008, ROUND NUMBER M465,--ETC(U)  
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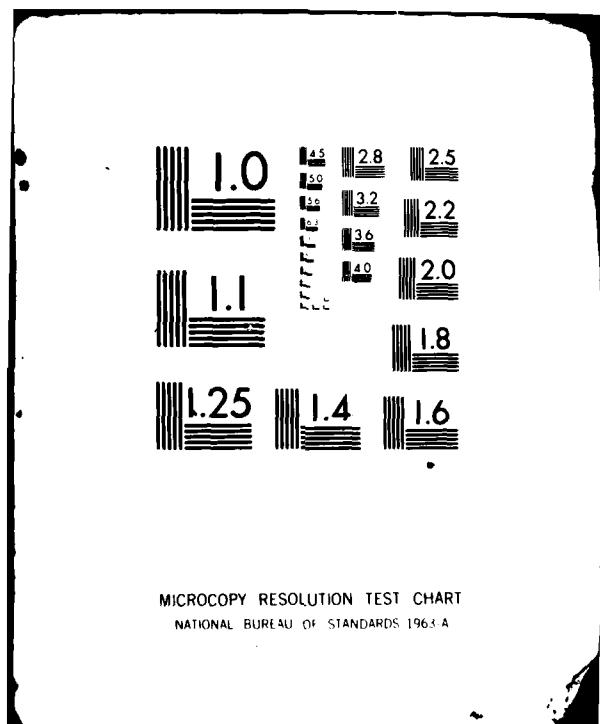
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DR 1217  
December 1981

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METEOROLOGICAL DATA REPORT

20403A Assault Breaker  
Missile Number 0008  
Round Number M4G3  
17 December 1981

by

SD E DTIC ELECTED  
MAR 01 1982

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AVN Number 349-9568

ATMOSPHERIC SCIENCES LABORATORY  
WHITE SANDS MISSILE RANGE, NEW MEXICO

ECOM  
UNITED STATES ARMY ELECTRONICS COMMAND

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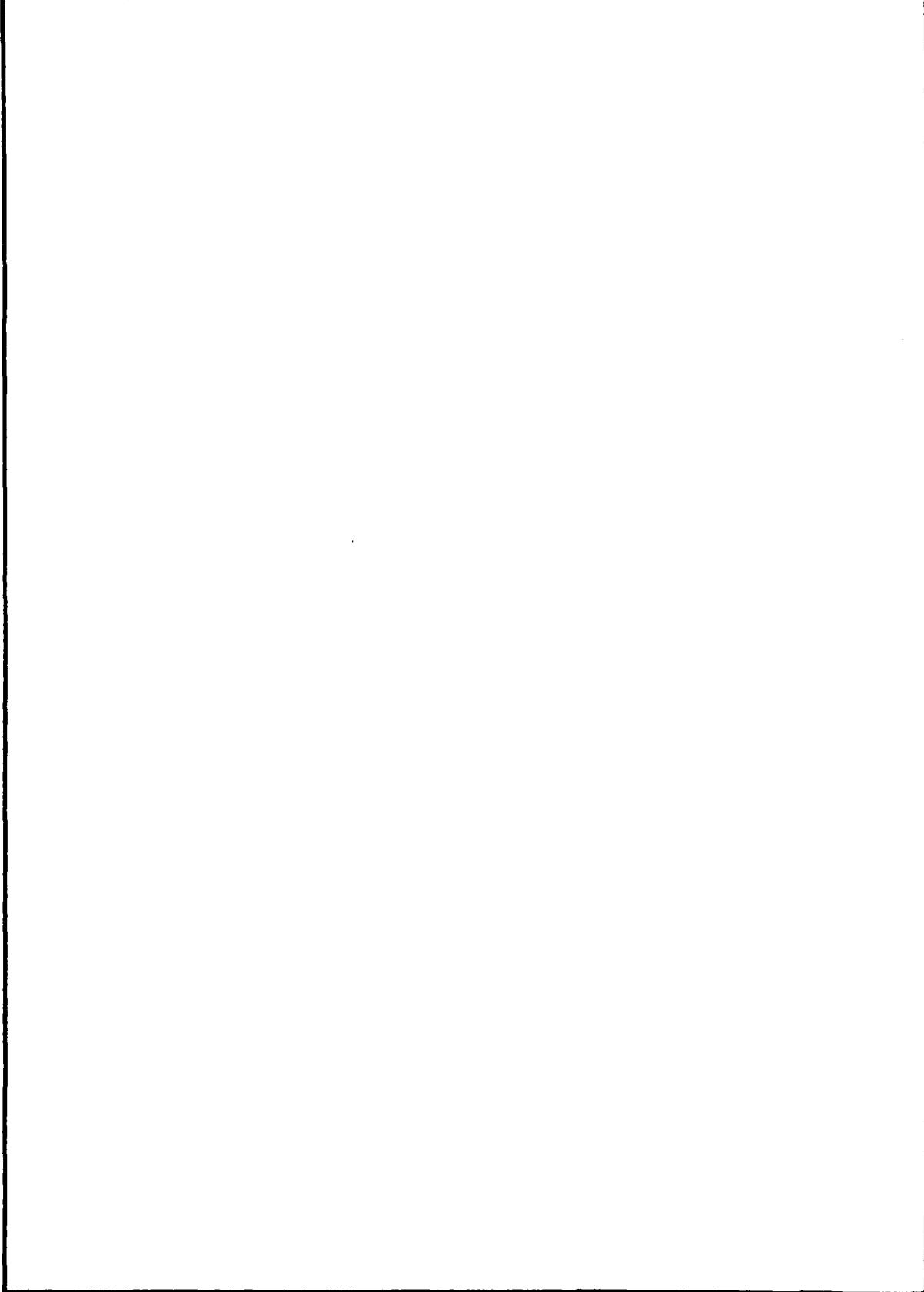
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1. REPORT NUMBER DR 1217	2. GOVT ACCESSION NO. HD-A111 428	3. RECIPIENT'S CATALOG NUMBER	
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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of the 20403A Assault Breaker Missile Number #0008, Round Number M-4G3 presented in tabular form.			

SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)



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Commercial	<input type="checkbox"/>
Emergency Information	
Flight Information	
Flight Codes	
Flight Codes or	
Dist	Initial
A	



## INTRODUCTION

20403A Assault Breaker, Missile Number #0008, Round Number M-4G3, was launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 0841 MST, 17 December 1981. The scheduled launch time was 0830 MST.

## DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

### 1. Observations.

#### a. Surface:

(1) Standard surface observations to include pressure, temperature ( $^{\circ}\text{C}$ ), relative humidity, dew point ( $^{\circ}\text{C}$ ), density ( $\text{gm/m}^3$ ), wind speed and direction, and cloud cover were made at the LC-33 Met Site at T-0 minutes, and JALLEN Met Site at T+30 and T-0 minutes.

(2) Anemometer data were provide from existing pole-mounted and tower-mounted anemometers at LC-33. Monitor of wind speed and direction from one anemometer was also provide in the launch control room.

#### b. Upper Air:

(1) Low level wind data were obtained from pilot-balloon observations at:

### SITE AND ALTITUDE

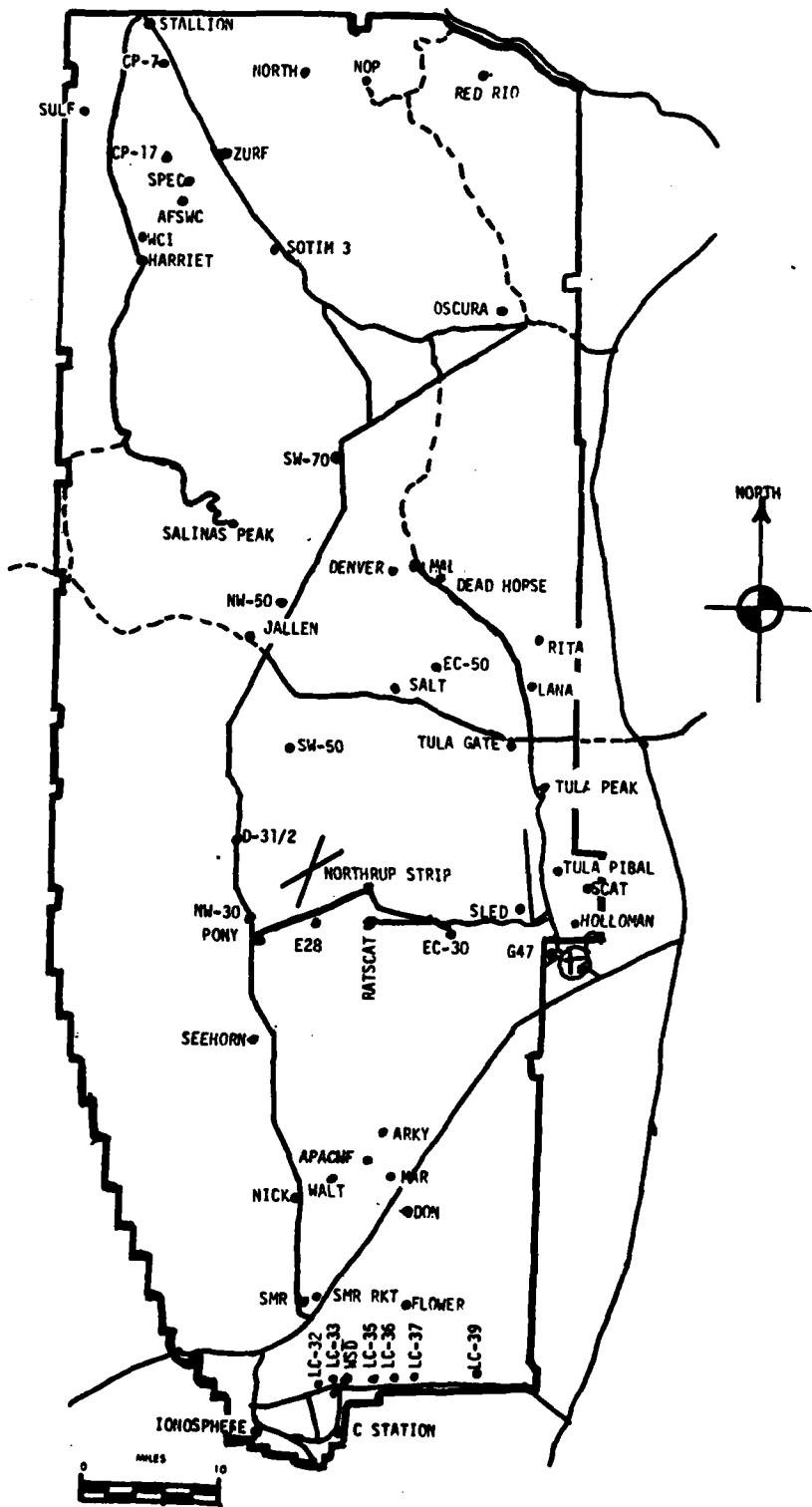
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WSD 3 KM

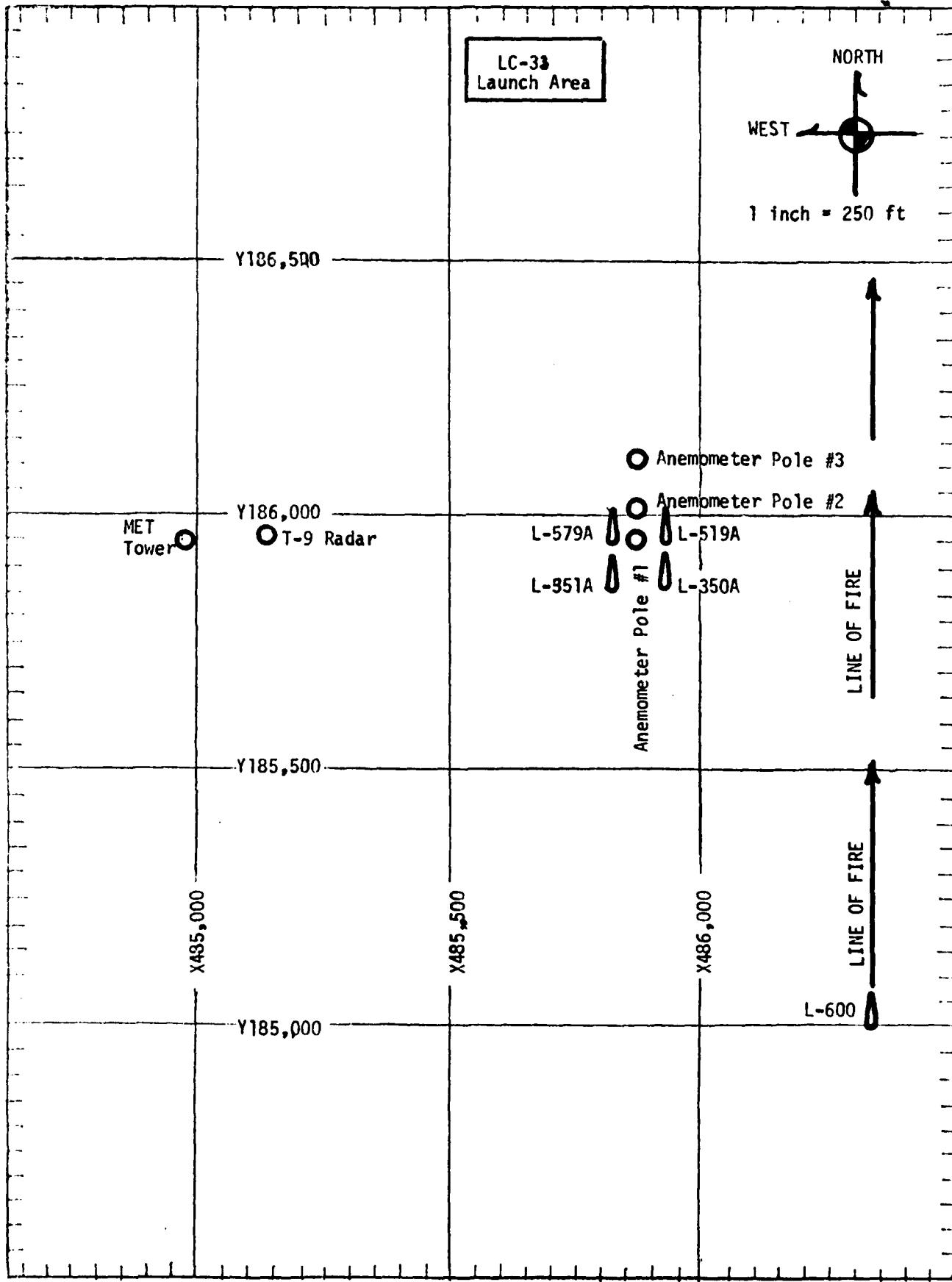
(2) Air structure data (rawinsonde) were collected at the following Met Sites:

### SITE AND TIME

JALLEN	0600 MST
Holloman	0830 MST
WSD	0840 MST
JALLEN	0840 MST
LC-37	0930 MST

## WSMR METEOROLOGICAL SITES





## PROJECT SURFACE OBSERVATION

TABLE 1

DATE 17 DAY	Dec MONTH	1981 YEAR	PRESSURE mb	TEMPERATURE OF °C	DEW POINT OF °C	RELATIVE HUMIDITY %	DENSITY gm/m <sup>3</sup>	DIRECTION deg Tn	WIND SPEED kts	CHARACTER	VISIBIL- ITY
TIME H S J											
0840	884.9		5.1		-2.2	56	1105	345	03		50

OBSTRUCTIONS TO VISIBILITY	CLOUDS			REMARKS		
	1st LAYER AMT	2nd LAYER AMT	3rd LAYER AMT	TYPE	HGT	TYPE
	1	C1	25,000			

## PSYCHROEITRIC COMPUTATION

TIME:	MST	0840			
DRY BULB TEMP.		5.1			
WET BULB TEMP.		1.9			
WET BULB DEPR.		3.2			
DEW POINT		-2.2			
RELATIVE HUMID.		56			

TABLE 2 LC-33 FIXED POLE ANEMOMETER MEASURED WINDS

POLE #1			POLE #2			POLE #3		
X485,874.29			X485,874.93			X485,877.29		
Y185,958.90			Y186,012.00			Y186,116.06		
H4018.74			H4033.57			H4062.92		
38.7 ft. AGL			53.0 ft. AGL			83.6 ft. AGL		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	320	03	T-30	345	03	T-30	344	05
T-20	320	02	T-20	329	03	T-20	343	05
T-10	321	02	T-10	329	02	T-10	350	04
T0.0	310	02	T0.0	339	02	T0.0	350	04
T+10	311	02	T+10	335	02	T+10	350	03

TABLE 3 LC-33 METEOROLOGICAL TOWER ANEMOMETER MEASURED WINDS (202 FT TOWER)

LEVEL #1, 12 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #2, 62 FEET X484,982.64, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	354	02	T-30	344	04
T-20	358	03	T-20	325	03
T-10	345	03	T-10	324	03
T0.0	338	03	T0.0	324	03
T+10	337	03	T+10	329	03

LEVEL #3, 102 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #4, 202 FEET X484,982, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	329	03	T-30	314	06
T-20	328	03	T-20	314	05
T-10	322	03	T-10	312	04
T0.0	330	03	T0.0	310	04
T+10	331	03	T+10	313	04

## PROJECT SURFACE OBSERVATION

TABLE 4

DATE 17 Dec 1981  
DAY MONTH YEAR

TIME M.S.I	PRESSURE mba	TEMPERATURE OF °C	DEW POINT OF °C	RELATIVE HUMIDITY %	DENSITY gm/m <sup>3</sup>	DIRECTION deg Tn	WIND SPEED kts	CHARACTER kts	VISIBIL- ITY
0840	884.1	5.2	-5.3	46	1.102	60	.08		50
0910	884.8	7.2	-5.5	40	1.095	40	.04		50

OBSTRUCTIONS TO VISIBILITY	CLOUDS			REMARKS		
	1st LAYER AMT	1st TYPE HGT	2nd LAYER AMT	2nd TYPE HGT	3rd LAYER AMT	3rd TYPE HGT
	C	L	E	A	R	
	C	L	E	A	R	

## PSYCHROMETRIC COMPUTATION

TIME: MST	0840	0910
DRY BULB TEMP.	5.2	7.2
WET BULB TEMP.	0.9	1.9
WET BULB DEPR.	4.3	5.3
DEW POINT	-5.3	-5.5
RELATIVE HUMID.	46	40

PILOT BALLOON MEASURED WIND DATA

TABLE 5

RELEASED FROM WSD

DATE 17 Dec 1981

TIME 0821 MST

COORDINATES (WSTM) X= 488,580.00 Y= 185,045.00 H= 3,989.50

NOTE: WIND DIRECTIONS ARE REFERENCED TO \_\_\_\_\_.

HEIGHTS ARE METERS AGL X OR FEET AGL

HEIGHT AGL	DIRECTION DEGREES	SPEED KNOTS
sfc	360	01
60	M I S G	
120	339	05
180	050	04
240	154	02
300	154	02
360	040	01
420	021	07
480	021	10
540	010	12
600	014	14
660	016	12
720	003	13
780	360	14
840	004	18
900	005	19
960	008	17
1020	008	16
1080	007	15
1140	004	14
1200	355	13
1260	342	12
1320	308	10
1380	277	10
1440	278	11
1500	284	12
1560	294	14
1620	307	16
1680	294	15
1740	289	17

PILOT BALLOON MEASURED WIND DATA

TABLE 6

RELEASED FROM WSD DATE 17 Dec 1981 TIME 0847 MST

COORDINATES (WSTM) X= 488,580.00 Y= 185,045.00 H= 3,989.50

NOTE: WIND DIRECTIONS ARE REFERENCED TO \_\_\_\_\_.

HEIGHTS ARE METERS AGL X OR FEET AGL \_\_\_\_\_.

HEIGHT AGL	DIRECTION DEGREES		SPEED KNOTS
sfc	010	02	
60	M I	S G	
120	337		03
180	002		06
240	347		03
300	284		02
360	210		02
420	009		04
480	026		08
540	018		12
600	018		14
660	015		15
720	006		15
780	003		17
840	002		19
900	003		18
960	005		17
1020	008		17
1080	357		17
1140	343		13
1200	342		09
1260	346		08
1320	307		07
1380	284		09
1440	290		10
1500	287		12
1560	305		14
1620	309		14
1680	305		16
1740	295		16

TABLE 7

JALLEN COMPUTER MET MESSAGES  
17 December 1981

JALLEN 0600 MST  
METCM1332065  
171200124881  
00631003 27570881  
01101010 27960810  
02059005 27970844  
03058005 27820804  
04536013 27550756  
05498025 27320710  
06505025 27030667  
07515032 26680626  
08530039 26300587  
09540048 26010550  
10537053 25760515  
11532053 25450482  
12520055 24890435  
13516061 24150379

STATION ALTITUDE 4051.00 FEET MSL  
 17 DEC. 61 0600 HRS MST  
 ASCENSION NO. 221

SIGNIFICANT LEVEL DATA  
 3510030221  
 JALLEN

GEODETIC COORDINATES  
 33.16712 LAT DEG  
 106.49511 LON DEG

TABLE 8

PRESSURE MILLIBARS MSL FEEt	GEOMETRIC ALTITUDE DEGREES CENTIGRADE	TEMPERATURE AIR. DEGREES CENTIGRADE	REL. HUM. PERCENT
881.0	4051.0	1.5	56.0
874.6	4245.2	5.0	50.5
869.9	4390.0	6.6	50.0
850.0	5013.2	6.1	45.0
818.6	6025.1	5.6	40.0
764.8	7839.8	2.1	40.0
729.8	9079.9	.9	49.0
700.0	10177.0	-1.1	54.0
670.2	11313.5	-2.9	44.0
657.8	11798.9	-3.6	27.0
573.0	15328.7	-11.7	20.3
500.0	18728.6	-16.7	26.0
446.5	21492.0	-22.8	37.0
400.0	24112.5	-29.0	31.0
366.1	26178.1	-33.3	41.0
352.7	27036.5	-35.4	30.0
		-46.4	31.0

STATION ALTITUDE 4051.00 FEET MSL  
17 DEC. '41 0600 HRS N.J.  
ASCENSION NO. 221

UPPER AIR DATA  
3510030221  
JALLEN  
TABLE 9

GEODETIC COORDINATES  
33.16712 LAT DEG  
106.49511 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	JEWPOINT CENTIGRADE	EL-HUM. PERCENT	SOUND METER KNOTS	WIND DATA		INDEX OF REFRACTION
						DENSITY GM/CUBIC	DIRECTION DEGREES (IN) WHEELS (IN)	
4051.0	881.0	1.5	-6.3	56.0	1115.6	046.2	355.0	2.9
4500.0	866.4	6.5	-5.3	42.5	1077.3	652.1	356.9	3.4
5000.0	850.4	6.1	-6.4	40.1	1059.1	651.6	358.4	3.9
5500.0	834.7	5.9	-6.7	40.0	1040.5	651.3	359.6	4.4
6000.0	819.4	5.6	-6.9	40.0	1022.2	651.0	360.6	4.9
6500.0	804.2	4.7	-7.0	42.4	1006.6	649.9	361.3	5.4
7000.0	789.2	3.7	-7.1	44.6	991.3	648.8	364.1	6.3
7500.0	774.6	2.8	-7.3	47.5	976.3	647.7	365.4	6.3
8000.0	760.2	1.9	-7.5	49.6	961.0	646.7	365.3	6.3
8500.0	746.0	1.5	-7.4	51.7	944.6	646.2	292.7	15.0
9000.0	732.0	1.0	-7.3	53.7	928.6	645.6	286.7	19.3
9500.0	718.2	.1	-9.0	50.2	914.1	644.5	285.3	21.4
10000.0	704.7	-.8	-11.0	45.6	900.1	643.4	285.1	22.6
10500.0	691.4	-1.6	-13.7	39.2	886.0	642.3	284.9	23.9
11000.0	678.3	-2.4	-16.9	31.7	872.0	641.3	284.5	25.6
11500.0	665.4	-3.2	-10.6	26.6	858.0	640.4	284.3	27.3
12000.0	652.6	-4.1	-20.4	26.6	844.3	639.3	284.4	29.3
12500.0	640.0	-5.2	-20.7	28.2	831.5	637.9	284.6	31.3
13000.0	627.6	-6.4	-21.1	29.7	819.0	636.5	286.7	32.5
13500.0	615.5	-7.5	-21.6	31.3	806.6	635.2	289.6	33.4
14000.0	603.6	-8.7	-22.0	32.9	794.4	633.8	292.5	34.6
14500.0	591.9	-9.8	-22.5	34.4	782.4	632.4	295.3	36.4
15000.0	580.4	-10.9	-23.0	36.0	770.7	631.0	297.8	38.4
15500.0	569.1	-12.0	-23.7	36.7	758.7	629.5	300.9	41.8
16000.0	557.8	-12.7	-24.7	35.8	745.6	628.9	303.5	45.4
16500.0	546.7	-13.4	-25.6	34.9	732.9	628.0	303.9	47.8
17000.0	535.9	-14.2	-26.5	34.1	720.4	627.1	304.2	49.9
17500.0	525.2	-14.9	-27.5	33.2	708.2	626.2	302.9	48.9
18000.0	514.8	-15.6	-28.4	32.3	696.1	625.3	301.5	49.1
18500.0	504.6	-16.4	-29.3	31.4	684.3	624.4	300.2	50.6
19000.0	494.5	-17.3	-30.0	32.0	673.0	623.3	299.7	52.1
19500.0	484.5	-18.4	-30.4	33.1	662.2	621.9	299.3	53.2
20000.0	474.6	-19.5	-30.6	35.6	651.6	620.6	298.6	52.7
20500.0	465.0	-20.6	-31.3	37.4	641.2	619.2	296.8	52.7
21000.0	455.6	-21.7	-31.8	39.2	631.0	617.9	293.9	53.3
21500.0	446.3	-22.8	-32.4	41.0	620.9	616.5	292.5	54.3
22000.0	437.1	-24.0	-34.0	38.9	611.0	615.0	291.5	55.5
22500.0	428.0	-25.2	-35.6	36.8	601.2	613.5	292.3	56.5
23000.0	419.1	-26.4	-37.3	34.7	591.5	612.1	293.6	57.4
23500.0	410.4	-27.6	-38.9	32.6	582.0	610.6	294.1	58.1

STATION ALTITUDE 4051.00 FEET MSL  
 17 DEC. 81 0600 HRS MST  
 ASCENSION NO. 221

UPPER AIR DATA  
 3510030221  
 JALLN

GEODETIC COORDINATES  
 33.16712 LAT DEG  
 106.49511 LON DEG

TABLE 9 CON'T

GEOMETRIC ALTITUDE HSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEPOINT CENTIGRADE	REL. HUM. PERCENT	SPLL OF GM/CURIC SOUND METER	WIND DATA DIRECTION (DEGREES TN)	SPEED KNOTS	INDEX OF REFRACTION
24000.0	401.9	-28.7	-40.6	30.5	572.7	009.1	294.1	58.8
24500.0	393.4	-29.8	-41.7	30.2	563.1	007.8	293.8	59.8
25000.0	385.1	-30.8	-42.5	30.4	553.5	006.5	293.5	60.8
25500.0	376.9	-31.9	-43.4	30.7	544.1	005.2	293.3	62.0
26000.0	368.9	-32.9	-44.2	30.9	534.9	003.8		1.000122
26500.0	361.0	-34.1	-45.2	31.0	526.0	002.4		1.000120
27000.0	353.3	-35.3	-46.3	31.0	517.4	000.8		1.000118

STATION ALTITUDE 4051.00 FEET MSL  
17 SEC. 81 0600 HRS MST  
ASCENSION NO. 221

MANDATORY LEVELS  
3510.30221  
JALTEH

GEODETIC COORDINATES  
33.16712 LAT UEG  
106.49511 LON UEG

TABLE 10

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE DEGREES	DEWPOINT CENTIGRADE	WIND HUMIDITY PERCENT	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS
850.0	5010.	6.1	-6.5	40.	358.5	3.9
800.0	6636.	4.4	-7.0	43.	354.5	5.5
750.0	8351.	1.6	-7.4	51.	295.1	13.8
700.0	10168.	-1.1	-11.6	44.	285.1	23.0
650.0	12096.	-4.3	-20.5	27.	284.5	29.7
600.0	14147.	-9.0	-22.2	33.	293.4	35.1
550.0	16338.	-13.2	-25.3	35.	303.6	47.1
500.0	18704.	-16.7	-29.8	31.	299.9	51.3
450.0	21273.	-22.4	-32.2	40.	292.5	55.7
400.0	24074.	-29.0	-41.0	30.	294.0	59.0

STATION ALTITUDE 4126.59 FEET MSL  
 17 DEC. 81 0830 HRS MST  
 ASCENSION NO. 319

SIGNIFICANT LEVEL DATA  
 3510010319  
 HOLLOWMAN  
 TABLE 11

GEODETIC COORDINATES  
 32.88865 LAT DEG  
 106.09965 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREE CENTIGRADE	REL.HUM. PERCENT
881.4	4126.6	4.5	-1.7
874.2	4346.2	4.7	-2.2
860.1	4783.4	6.8	-3.4
850.0	5101.8	6.4	-4.9
828.0	5007.0	5.4	-6.8
818.8	6107.1	5.8	-7.1
769.3	7770.5	1.6	-10.2
746.0	8582.5	0	-8.2
710.6	9858.8	-1.6	-7.5
700.0	10252.1	-1.9	-8.0
667.2	11505.0	-2.5	-22.9
623.2	13277.1	-4.4	-22.4
611.5	13766.3	-6.0	-21.9
573.2	15423.6	-8.3	-27.7
500.0	18864.8	-15.1	-32.0
467.7	20514.6	-18.4	-34.8
400.0	24285.5	-27.4	-41.3
367.6	26269.6	-31.5	-45.3
330.7	28700.3	-38.1	-50.7
300.0	30884.9	-43.1	
274.9	32807.4	-46.9	
250.0	34852.8	-52.7	
224.8	37082.3	-58.6	
200.0	39480.9	-62.4	
182.7	41315.5	-63.7	
176.0	42074.2	-61.9	
169.7	42817.2	-62.1	
159.1	44131.4	-62.1	
150.0	45334.2	-61.2	

STATION ALTITUDE 4126.59 FEET MSL  
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SIGNIFICANT LEVEL DATA  
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TABLE 11 CON'T

GEODETIC COORDINATES  
32.68865 LAT DEG  
106.09965 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE DEGREES CENTIGRADE	AIR DEPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT
881.4	4126.6	4.5	-1.7	64.0
874.2	4346.2	4.7	-2.2	61.0
860.1	4783.4	6.8	-3.4	48.0
850.0	5101.8	6.4	-4.9	44.0
828.0	5807.0	5.4	-6.8	41.0
818.0	6107.1	5.8	-7.1	39.0
769.3	7770.5	1.6	-10.2	41.0
746.0	8502.5	0.0	-6.2	54.0
710.6	9858.8	-1.6	-7.5	64.0
700.0	10252.1	-1.9	-6.0	63.0
667.2	11505.0	-2.5	-22.9	19.0
623.2	13277.1	-4.4	-22.4	23.0
611.5	13766.3	-6.0	-21.9	27.0
573.2	15423.6	-8.3	-27.7	19.0
500.0	18864.8	-15.1	-32.0	22.0
467.7	20514.6	-16.4	-34.8	22.0
400.0	24285.5	-27.4	-41.3	25.0
367.6	26269.6	-31.5	-45.3	24.0
330.7	28700.3	-38.1	-50.7	25.0
300.0	30884.9	-43.1		
274.9	32807.4	-46.9		
250.0	34852.8	-52.7		
224.8	37082.3	-58.6		
200.0	39480.9	-62.4		
182.7	41315.5	-63.7		
176.0	42074.2	-61.9		
169.7	42817.2	-62.1		
159.1	44131.4	-62.1		
150.0	45334.2	-61.2		
135.2	47446.4	-64.0		
125.8	48906.0	-62.9		
107.7	52035.0	-66.4		
100.0	53516.0	-66.7		
95.6	54415.5	-65.9		
93.4	54803.9	-64.0		
84.0	57035.6	-62.6		
73.7	59683.9	-64.9		
70.0	60729.1	-61.7		
57.1	64873.4	-63.9		
50.0	67557.8	-64.5		

STATION ALTITUDE 4126.59 FEET MSL  
17 DEC. 81 0830 HRS MST  
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SIGNIFICANT LEVEL DATA

3510010319

HOLL OMAN

TABLE 11 CON'T

GEOGRAPHIC COORDINATES  
32.88865 LAT DEG  
106.09965 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREE CENTIGRADE	REL.HUM. PERCENT
42.6	70819.4	-61.0	
38.2	73057.3	-61.2	
30.0	78082.6	-55.6	
27.7	79771.3	-53.6	
23.9	822908.9	-53.8	
20.5	86179.5	-52.7	

STATION ALTITUDE 4126.59 FEET MSL  
17 DEC. 61 0830 HRS MST  
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UPPER AIR DATA  
3510010319  
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TABLE 12

GEODETIC COORDINATES  
32.88865 LAT DEG  
106.09965 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEWEPOINT DEGREES CENTIGRADE	FEL. HUM. PERCENT	SOUND SPEED KNOTS	WIND DATA DIRECTION DEGREES (1N)	INDEX OF REFRACTION
4126.6	881.4	4.5	-1.7	64.0	1103.3	649.9
4500.0	869.2	5.4	-2.5	56.4	1084.5	651.0
5000.0	853.2	6.5	-4.4	45.3	1060.7	652.1
5500.0	837.5	5.8	-6.0	42.3	1043.9	651.3
6000.0	822.1	5.7	-7.0	39.7	1025.5	651.0
6500.0	806.8	4.8	-7.8	39.5	1009.6	650.0
7000.0	791.8	3.5	-8.7	40.1	995.4	648.5
7500.0	777.1	2.3	-9.7	40.7	981.5	647.0
8000.0	762.6	1.1	-9.5	44.7	967.2	645.7
8500.0	748.3	.2	-8.3	52.7	952.3	644.6
9000.0	734.2	-.5	-7.9	57.3	936.6	643.8
9500.0	720.4	-1.2	-7.7	61.2	921.0	643.1
10000.0	706.8	-1.7	-7.7	63.6	905.4	642.4
10500.0	693.4	-2.0	-10.0	54.3	899.5	642.0
11000.0	680.2	-2.3	-15.0	36.7	873.9	641.5
11500.0	667.3	-2.5	-22.8	19.2	858.5	641.1
12000.0	654.6	-3.0	-22.7	20.1	843.8	640.5
12500.0	642.1	-3.6	-22.5	21.2	829.3	639.8
13000.0	629.9	-4.1	-22.4	22.4	815.1	639.2
13500.0	617.8	-5.1	-22.1	24.8	802.5	638.0
14000.0	605.9	-6.3	-22.0	25.9	790.6	636.6
14500.0	594.9	-7.0	-24.4	23.5	777.4	635.7
15000.0	582.8	-7.7	-26.1	21.0	764.5	634.9
15500.0	571.5	-8.5	-27.8	19.1	751.8	634.0
16000.0	560.2	-9.4	-28.4	19.5	739.8	632.8
16500.0	549.2	-10.4	-29.0	19.9	728.0	631.6
17000.0	538.4	-11.4	-29.6	20.4	716.4	630.4
17500.0	527.6	-12.4	-30.2	20.8	705.0	629.2
18000.0	517.5	-13.4	-30.9	21.2	693.7	628.0
18500.0	507.3	-14.4	-31.5	21.7	682.7	626.8
19000.0	497.3	-15.4	-32.2	22.0	671.8	625.6
19500.0	487.3	-16.4	-33.0	22.0	660.9	624.4
20000.0	477.5	-17.4	-33.9	22.0	650.2	623.1
20500.0	468.0	-18.4	-34.8	22.0	639.7	621.9
21000.0	458.4	-19.6	-35.6	22.4	629.5	620.5
21500.0	449.0	-20.8	-36.5	22.6	619.5	619.0
22000.0	439.8	-21.9	-37.3	23.2	609.7	617.5
22500.0	430.7	-23.1	-38.2	23.6	600.1	616.1
23000.0	421.9	-24.3	-39.0	24.0	590.6	614.6
23500.0	413.2	-25.5	-39.9	24.4	581.3	613.1

XX MIND DATA INVALID DUE TO ISSING RAW AZIMUTH AND ELEV TITION ANGLES.

STATION ALTITUDE 4126.59 FEET MSL  
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UPPER AIR DATA  
 3510010319  
 HOLLOWMAN  
 TABLE 12 CON'T

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (DEGREES TN)	SPEED IN KNOTS	INDEX OF REFRACTION
24000.0	404.8	-26.7	40.8	572.1	611.6	299.3	54.8	1.000128
24500.0	396.4	-27.8	41.7	562.8	610.2	297.4	56.4	1.000126
25000.0	388.0	-28.9	42.7	553.3	608.9	296.4	56.6	1.000124
25500.0	379.8	-29.9	43.7	543.9	607.6	296.1	56.5	1.000122
26000.0	371.6	-30.9	46.7	534.8	606.3	297.0	56.5	1.000120
26500.0	363.9	-32.1	45.8	526.0	604.8	296.2	56.0	1.000118
27000.0	356.1	-33.5	46.9	517.6	603.1	299.5	55.3	1.000116
27500.0	348.4	-34.8	48.0	509.3	601.4	300.3	55.6	1.000114
28000.0	340.9	-36.2	49.1	501.2	599.7	300.9	56.2	1.000112
28500.0	333.6	-37.6	50.2	493.2	598.0	300.7	57.8	1.000110
29000.0	326.3	-38.8	52.5	485.0	596.4	300.4	59.6	1.000108
29500.0	319.1	-39.9	56.0	476.6	595.0	299.7	62.0	1.000106
30000.0	312.1	-41.1	60.5	468.4	593.5	299.1	63.8	1.000104
30500.0	305.2	-42.2	67.5	460.4	592.0	299.1	63.7	1.000103
31000.0	298.4	-43.3		452.4	590.6	299.1	63.3	1.000101
31500.0	291.7	-44.3		444.1	589.3	299.6	60.1	1.000099
32000.0	285.2	-45.3		436.0	588.1	300.1	57.0	1.000097
32500.0	278.8	-46.3		428.1	586.8	300.4	54.8	1.000095
33000.0	272.5	-47.4		420.5	585.3	300.6	52.5	1.000094
33500.0	266.2	-48.9		413.5	583.4	300.1	50.4	1.000092
34000.0	260.1	-50.3		406.6	581.6	299.3	48.3	1.000091
34500.0	254.1	-51.7		399.8	579.7	296.6	46.3	1.000089
35000.0	248.3	-53.1		393.0	577.9	294.0	44.4	1.000088
35500.0	242.4	-54.4		386.1	576.2	291.0	45.4	1.000086
36000.0	236.7	-55.7		379.3	574.4	288.2	47.4	1.000084
36500.0	231.1	-57.1		372.6	572.7	286.3	50.8	1.000083
37000.0	225.7	-58.4		366.1	570.9	285.1	55.1	1.000082
37500.0	220.3	-59.3		358.8	569.8	284.2	58.4	1.000080
38000.0	215.0	-60.1		351.4	568.7	283.6	60.4	1.000078
38500.0	209.8	-60.8		344.2	567.6	283.1	62.4	1.000077
39000.0	204.7	-61.6		337.2	566.6	282.9	63.6	1.000075
39500.0	199.8	-62.4		330.3	565.5	282.7	64.9	1.000074
40000.0	194.9	-62.8		322.8	565.1	282.6	68.4	1.000072
40500.0	190.2	-63.1		315.5	564.6	283.0	72.0	1.000070
41000.0	185.6	-63.5		308.3	564.1	282.7	73.7	1.000069
41500.0	181.0	-63.3		300.5	564.4	282.4	75.2	1.000067
42000.0	176.6	-62.1		291.5	566.0	282.2	75.3	1.000065
42500.0	172.4	-62.0		284.4	566.1	282.7	75.3	1.000063
43000.0	168.2	-62.1		277.6	566.0	282.7	76.4	1.000062
43500.0	164.1	-62.1		270.9	566.0	283.4	77.5	1.000060

\*\* AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

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UPPER AIR DATA  
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 TABLE 12 CON'T

GEODETIC COORDINATES  
 32.88865 LAT DEG  
 106.09965 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT DEGREES	REL.HUM. PERCENT	SPEED OF SOUND METER KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
44000.0	160.1	-62.1		264.3	566.0	284.1	78.2	1.000059
44500.0	156.3	-61.8		257.6	566.3	284.6	78.6	1.000057
45000.0	152.5	-61.5		250.9	566.8	285.2	79.1	1.000056
45500.0	148.8	-61.4		244.8	566.9	284.2	78.8	1.000055
46000.0	145.2	-62.1		239.6	566.0	283.2	78.6	1.000053
46500.0	141.6	-62.7		234.5	565.1	282.6	76.4	1.000052
47000.0	138.2	-63.4		229.5	564.2	281.9	73.8	1.000051
47500.0	134.8	-64.0		224.6	563.5	282.9	70.4	1.000050
48000.0	131.6	-63.6		218.7	564.0	286.4	65.9	1.000049
48500.0	128.3	-63.2		213.0	564.5	290.4	61.9	1.000047
49000.0	125.2	-63.0		207.6	564.7	293.9	59.3	1.000046
49500.0	122.1	-63.6		203.0	564.0	297.6	56.9	1.000045
50000.0	119.1	-64.1		198.6	563.2	298.1	53.6	1.000044
50500.0	116.2	-64.7		194.2	562.5	297.9	50.2	1.000043
51000.0	113.4	-65.2		190.0	561.7	297.4	46.9	1.000042
51500.0	110.6	-65.8		185.8	561.0	296.6	43.8	1.000041
52000.0	107.9	-66.4		181.8	560.2	295.4	41.9	1.000040
52500.0	105.2	-66.5		177.4	560.0	293.3	42.6	1.000039
53000.0	102.6	-66.6		173.1	559.9	291.3	43.6	1.000039
53500.0	100.1	-66.7		168.9	559.8	289.0	47.3	1.000038
54000.0	97.6	-66.3		164.4	560.3	287.0	51.1	1.000037
54500.0	95.2	-65.6		159.8	561.3	286.3	51.8	1.000036
55000.0	92.9	-63.9		154.6	563.5	285.9	51.8	1.000034
55500.0	90.6	-63.6		150.6	563.9	285.5	51.4	1.000034
56000.0	88.4	-63.4		146.7	564.4	285.2	47.6	1.000033
56500.0	86.2	-62.9		142.9	564.8	284.8	43.7	1.000032
57000.0	84.1	-62.6		139.2	565.3	284.4	40.1	1.000031
57500.0	82.1	-63.0		136.1	564.8	284.0	37.1	1.000030
58000.0	80.1	-63.4		133.0	564.2	283.6	34.0	1.000029
58500.0	78.1	-63.9		130.1	563.6	283.6	31.3	1.000028
59000.0	76.2	-64.3		127.2	563.0	283.9	28.6	1.000028
59500.0	74.4	-64.7		124.3	562.4	284.3	26.0	1.000027
60000.0	72.6	-63.9		120.8	563.5	286.1	23.9	1.000027
60500.0	70.8	-62.4		117.0	565.6	288.2	21.8	1.000026
61000.0	69.1	-61.8		113.9	566.3	290.9	20.0	1.000025
61500.0	67.4	-62.1		111.3	566.0	294.4	18.7	1.000025
62000.0	65.8	-62.4		108.7	565.6	298.6	17.4	1.000024
62500.0	64.2	-62.6		106.2	565.2	302.0	16.4	1.000024
63000.0	62.6	-62.9		103.7	564.9	305.2	15.6	1.000023
63500.0	61.1	-63.2		101.3	564.5	308.6	14.8	1.000023

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UPPER AIR DATA  
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 TABLE 12 CON'T

GEODETIC COORDINATES  
 32.88865 LAT DEG  
 106.09965 LON DEG

GEOMETRIC ALTITUDE HSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	INDEX OF REFRACTION
64000.0	59.6	-63.4		99.0	564.2	308.5	14.7	1.000022
64500.0	58.2	-63.7		96.7	563.8	308.4	14.6	1.000022
65000.0	56.7	-63.9		94.5	563.5	307.0	15.0	1.000021
65500.0	55.4	-64.0		92.2	563.4	304.1	16.1	1.000021
66000.0	54.0	-64.2		90.0	563.2	301.5	17.2	1.000020
66500.0	52.7	-64.3		87.9	563.1	299.7	17.9	1.000020
67000.0	51.4	-64.4		85.8	562.9	298.3	18.3	1.000019
67500.0	50.1	-64.5		83.7	562.8	296.9	18.7	1.000019
68000.0	48.9	-64.0		81.5	563.4	296.1	16.3	1.000018
68500.0	47.7	-63.5		79.3	564.1	295.8	17.3	1.000018
69000.0	46.6	-63.0		77.2	564.8	295.4	16.3	1.000017
69500.0	45.5	-62.4		75.1	565.5	294.6	15.4	1.000017
70000.0	44.3	-61.9		73.1	566.3	293.5	14.9	1.000016
70500.0	43.3	-61.3		71.2	567.0	292.3	14.3	1.000016
71000.0	42.2	-61.0		69.3	567.4	290.3	14.3	1.000015
71500.0	41.2	-61.1		67.7	567.4	287.4	15.7	1.000015
72000.0	40.2	-61.1		66.1	567.3	284.9	17.2	1.000015
72500.0	39.3	-61.2		64.5	567.2	282.5	16.9	1.000014
73000.0	38.3	-61.2		63.0	567.2	279.9	21.3	1.000014
73500.0	37.4	-60.7		61.3	567.8	277.9	23.6	1.000014
74000.0	36.5	-60.1		59.7	568.6	276.2	25.7	1.000013
74500.0	35.6	-59.6		58.1	569.3	274.6	26.8	1.000013
75000.0	34.8	-59.0		56.6	570.1	273.2	26.0	1.000013
75500.0	34.0	-58.5		55.1	570.8	272.8	29.4	1.000012
76000.0	33.2	-57.9		53.7	571.5	274.9	31.2	1.000012
76500.0	32.4	-57.4		52.3	572.3	276.7	33.1	1.000012
77000.0	31.6	-56.8		50.9	573.0	278.9	35.4	1.000011
77500.0	30.9	-56.2		49.6	573.8	282.0	39.3	1.000011
78000.0	30.1	-55.7		48.3	574.5	284.7	43.3	1.000011
78500.0	29.4	-55.1		47.0	575.3	286.7	47.1	1.000010
79000.0	28.7	-54.5		45.8	576.0	286.3	48.0	1.000010
79500.0	28.1	-53.9		44.6	576.8	285.9	48.8	1.000010
80000.0	27.4	-53.6		43.5	577.2	285.5	49.7	1.000010
80500.0	26.8	-53.6		42.5	577.2	284.0	48.5	1.000009
81000.0	26.1	-53.1		41.5	577.1	281.4	46.0	1.000009
81500.0	25.5	-53.7		40.5	577.1	278.4	43.6	1.000009
82000.0	24.9	-53.7		39.6	577.1	275.5	41.4	1.000009
82500.0	24.4	-53.8		38.7	577.0	273.3	40.0	1.000009
83000.0	23.8	-53.8		37.8	577.0	271.5	38.8	1.000008
83500.0	23.2	-53.6		36.9	577.2	269.1	37.6	1.000008

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TABLE 12 CON'T

GEODETIC COORDINATES  
32.88865 LAT DEG  
106.09965 LON DEG

GEOMETRICAL ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEPOINT DEGREES	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND METERS	WIND DATA DIRECTION OF GREEES (TN)	INDEX OF REFRACTION
84000.0	22.7	22.7	-53.4	36.0	577.5	36.0	577.5	1.000008
84500.0	22.2	22.2	-53.3	35.1	577.7	35.1	577.7	1.000008
85000.0	21.7	21.7	-53.1	34.3	577.9	34.3	577.9	1.000008
85500.0	21.2	21.2	-52.9	33.5	578.1	33.5	578.1	1.000007
86000.0	20.7	20.7	-52.8	32.7	578.4	32.7	578.4	1.000007

STATION ALTITUDE 4126.59 FEET MSL  
 17 DEC. 81 0830 HRS MST  
 ASCENSION NO. 319

MANDATORY LEVELS  
 3510010319  
 HOLLOWMAN  
 TABLE 13

GEOGRAPHIC COORDINATES  
 32.88865 LAT DEG  
 106.09965 LON DEG

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE DEGREES	AIR DEWPONT CENTIGRADE	REL. HUM. PERCENT	WIND DATA	
					DIRECTION (DEGREES TN)	SPEED KNOTS
850.0	5098.	6.4	-4.9	44.	9999.0	9999.0XX
800.0	6724.	4.2	-8.2	40.	9999.0	9999.0XX
750.0	8434.	3	-8.5	52.	9999.0	9999.0XX
700.0	10242.	-1.9	-8.0	63.	310.3	23.8
650.0	12172.	-3.2	-22.6	21.	292.0	35.7
600.0	14238.	-6.7	-23.5	25.	306.3	40.7
550.0	16453.	-10.4	-29.0	20.	311.7	46.0
500.0	18839.	-15.1	-32.0	22.	297.7	49.8
450.0	21426.	-20.6	-36.4	23.	298.4	54.5
400.0	24246.	-27.4	-41.3	25.	298.3	55.7
350.0	27357.	-34.6	-47.8	24.	300.2	55.5
300.0	30825.	-43.1			299.1	63.7
250.0	34779.	-52.7			295.0	45.0
200.0	39388.	-62.4			282.7	64.8
175.0	42086.	-61.9			282.1	75.3
150.0	45215.	-61.2			284.6	78.9
125.0	48898.	-63.0			293.9	59.2
100.0	53355.	-66.7			289.0	47.3
80.0	57839.	-63.5			283.6	34.0
70.0	60525.	-61.7			289.1	21.0
60.0	63645.	-63.4			306.5	14.7
50.0	67309.	-64.5			296.8	18.7
40.0	71831.	-61.1			284.5	17.4
30.0	77756.	-55.6			284.9	43.7
25.0	81594.	-53.7			275.8	41.7

\*\* AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

XX WIND DATA INVALID DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

STATION ALTITUDE 4126.59 FEET MSL  
 17 DEC. 81 0830 HRS MST  
 ASCENSION NO. 319

MRN MANDATORY LEVELS  
 3510010319  
 HOLLOWMAN  
 TABLE 13 CON'T

GEODETIC COORDINATES  
 32.88865 LAT DEG  
 106.09965 LON DEG

GEOPOTENTIAL ALTITUDE DECA METERS	DIRECTION DEG (TN)	WIND DATA			TEMPERATURE AIR DEG C	PRESSURE MILLIBARS
		SPEED MPS	N-S MPS	E-W MPS		
2487.	276.	21.	-12.	21.	99	-53.7
2370.	285.	22.	-6.	22.	99	-55.6
2189.	285.	9.	-2.	9.	99	-61.1
2052.	297.	10.	-4.	9.	99	-64.5
1940.	309.	6.	-5.	6.	99	-63.4
1845.	289.	11.	-4.	10.	99	-61.7
1763.	284.	18.	-4.	17.	99	-63.5
1626.	289.	24.	-8.	23.	99	-66.7
1490.	294.	30.	-12.	28.	99	-63.0
1378.	285.	41.	-10.	39.	99	-61.2
1283.	282.	39.	-8.	38.	99	-61.9
1201.	283.	33.	-7.	33.	99	-62.4
1060.	295.	23.	-10.	21.	99	-52.7
940.	299.	33.	-16.	29.	99	-43.1
834.	300.	29.	-14.	25.	13	-34.6
739.	298.	29.	-14.	25.	14	-27.4
653.	298.	28.	-13.	25.	16	-20.6
574.	298.	26.	-12.	23.	17	-15.1
501.	312.	24.	-16.	18.	19	-10.4
434.	306.	21.	-12.	17.	17	-6.7
371.	292.	18.	-7.	17.	19	-3.2
312.	310.	12.	-8.	9.	06	-1.9
257.	9999.**	9999.**	-9999.**	-9999.**	09	.3
205.	9999.**	9999.**	-9999.**	-9999.**	12	4.2
155.	9999.**	9999.**	-9999.**	-9999.**	11	6.4

\*\* WIND DATA NOT COMPUTED DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

STATION ALTITUDE 3989.00 FEET MSL  
 17 UTC. 61 0840 IRS MST  
 ASCENSUSN NO. /45

SIGNIFICANT LEVEL DATA

3511020745  
 WHITE SANDS

GEODETIC COORDINATES  
 32.40043 LAT DEG  
 106.37033 LON DEG

TABLE 14

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE METERS MSL	TEMPERATURE AIR DEPOINT DEGREES CENTIGRADE	KELVIN. PERCENT
885.7	3989.0	7.5	-41.0
866.2	4586.7	3.5	-51.7
856.6	4883.6	3.1	-50.3
850.0	5089.8	3.7	-50.0
789.6	7052.5	2.6	-73.5
752.8	8316.8	-8	-8.4
743.4	8648.6	-8	-8.2
700.0	10228.0	-2.3	-9.9
693.9	10456.4	-2.4	-10.6
679.8	10993.7	-8	-14.0
593.8	14504.9	-6.7	-16.6
560.2	15991.6	-9.9	-21.8
551.6	16384.0	-10.0	-21.9
500.0	18843.3	-16.6	-27.8
464.2	21669.5	-19.6	-27.5
425.8	22757.2	-25.0	-35.7
403.8	24619.4	-27.6	-38.0
400.0	24243.0	-28.0	-38.4
369.2	26117.9	-32.8	-43.0
355.4	26997.6	-34.4	-44.4
316.4	29632.4	-41.7	
300.0	30814.6	-43.9	
267.6	33308.4	-49.9	
250.0	34764.6	-52.6	
245.0	35193.5	-53.6	
223.4	37130.7	-57.6	
200.0	39416.2	-60.6	
174.6	42181.7	-63.8	
161.4	43769.8	-64.0	
150.0	45253.3	-62.8	
144.8	45968.3	-63.6	
136.8	47117.4	-63.8	
133.0	47685.7	-64.8	
125.6	48140.0	-64.0	
114.6	50689.7	-64.5	
111.4	51259.2	-65.5	
109.4	51623.5	-64.6	
108.0	51882.4	-65.6	
107.0	53426.7	-65.4	
95.0	54454.5	-66.2	

STATION ALTITUDE 3989.00 FEET MSL  
17 DEC. 61 0840 HRS MST  
ASCENSION NO. 745

SIGNIFICANT LEVEL DATA

3510020745

WHITE SANDS

TABLE 14 CON'T

EASTATIC COORDINATES  
32.4943 LAT DEG  
106.37033 LON DEG

PRESSURE GEOMETRIC MILLIBARS MSL FEET	ALTITUDE MILLIBARS MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT
82.6	57262.0	-61.6	
81.4	57558.2	-62.8	
77.0	58680.8	-65.6	
74.4	59371.8	-64.6	
70.0	60604.8	-63.4	
68.6	61113.2	-64.8	
61.0	63391.9	-62.6	
50.0	67429.3	-61.0	
48.8	67020.2	-64.6	
42.0	70978.3	-60.6	
39.6	72189.1	-60.6	
37.4	73362.3	-61.7	
34.8	74842.1	-60.4	
32.4	76324.8	-57.4	

STATION ALTITUDE 3989.0 FEET MSL  
17 DEC. 81 0840 IRS MST  
ASCENSION NO. 745

UPPER AIR DATA  
3510020745  
WHITE SANDS

TABLE 15

GEOMETRIC PRESSURE ALTITUDE MSL FEET	TEMPERATURE AIR DEPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	REL. HUM. PERCENT	DENSITY CM/CURIC METER	SOUND KNOTS	WIND DATA INCLINATION DEGREES (IN) REFRACTION	INDEX OF REFRACTION
3989.0	885.7	7.5	-4.9	41.0	1097.4	653.2	1.9
4000.0	885.3	7.4	-4.9	41.2	1097.2	653.2	2.0
4500.0	869.6	4.1	-5.5	49.5	1090.1	649.2	4.5
5000.0	852.9	3.4	-5.1	53.4	1072.2	648.5	1.0000263
5500.0	837.0	3.5	-5.4	52.0	1052.2	648.5	1.0000260
6000.0	821.4	3.2	-6.0	50.7	1033.7	648.2	9.4
6500.0	806.2	2.9	-6.6	49.4	1015.5	647.9	1.0000256
7000.0	791.2	2.6	-7.2	48.1	997.7	647.5	1.0000245
7500.0	776.4	2.0	-7.7	48.7	981.5	646.7	5.6
8000.0	761.9	1.3	-8.1	49.5	965.6	645.9	1.0000240
8500.0	747.6	.8	-8.3	50.6	949.1	645.5	1.0000236
9000.0	735.5	.1	-8.5	52.1	935.6	644.5	1.0000232
9500.0	719.7	-9.9	-9.1	53.7	919.3	643.4	1.0000228
10000.0	706.1	-1.9	-9.6	55.3	905.3	642.2	1.0000224
10500.0	692.7	-2.3	-10.9	51.6	889.0	641.7	1.0000221
11000.0	679.6	-8	-14.0	36.0	668.4	640.5	1.0000217
11500.0	666.7	-1.7	-14.6	36.3	654.5	642.3	1.0000213
12000.0	654.0	-2.5	-15.3	36.6	640.8	641.3	1.0000210
12500.0	641.5	-3.3	-15.9	36.9	827.4	640.3	34.2
13000.0	629.2	-4.2	-16.6	37.1	614.1	639.2	1.0000197
13500.0	617.2	-5.0	-17.3	37.4	d01.1	638.2	305.9
14000.0	605.5	-5.9	-17.9	37.7	780.4	637.2	308.9
14500.0	593.9	-6.7	-18.6	38.0	775.8	636.2	311.2
15000.0	582.4	-7.8	-19.7	37.7	633.9	634.9	314.5
15500.0	571.1	-8.6	-20.7	37.3	752.1	633.0	317.5
16000.0	560.0	-9.9	-21.8	37.0	740.6	632.3	320.8
16500.0	549.0	-10.3	-22.2	37.0	727.2	631.8	324.2
17000.0	539.2	-11.7	-23.4	37.0	716.5	630.2	328.6
17500.0	527.6	-13.0	-24.6	37.0	706.0	628.5	332.0
18000.0	517.1	-14.3	-25.8	37.0	695.7	626.9	336.3
18500.0	506.9	-15.7	-27.0	37.0	685.5	625.3	340.4
19000.0	496.8	-16.9	-27.8	38.0	675.0	623.8	344.5
19500.0	486.8	-17.7	-27.6	41.3	663.5	622.8	348.9
20000.0	477.0	-18.5	-27.5	44.6	652.2	621.8	353.7
20500.0	467.4	-19.3	-27.5	47.9	641.2	620.8	357.1
21000.0	457.9	-20.5	-28.8	46.9	631.0	619.4	44.2
21500.0	448.5	-21.7	-30.7	43.6	621.3	617.8	44.9
22000.0	439.3	-23.0	-32.7	40.7	611.7	616.2	45.2
22500.0	430.4	-24.3	-34.6	37.6	602.4	614.6	45.5
23000.0	421.5	-25.5	-36.1	36.0	592.7	613.2	45.9

STATION ALTITUDE 3989.00 FEET MSL  
17 DEC. 61 0840 HRS MST  
ASCENSION NO. 745

UPPER AIR DATA  
3510020745  
WHITT SANUS

TABLE 15 CON'T

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CENTIGRADE	FL.HM. DEPOINT PERCENT	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
					DEGREES (N)	INJECTION SPEED KNOTS	
23500.0	412.7	-26.5	-37.1	36.0	582.8	611.9	306.2
24000.0	404.1	-27.6	-38.0	36.0	573.1	610.6	306.0
24500.0	395.6	-28.7	-39.0	35.9	563.6	599.2	305.9
25000.0	387.3	-29.9	-40.2	35.6	554.6	607.6	305.7
25500.0	379.1	-31.2	-41.5	35.3	545.8	606.0	305.5
26000.0	371.1	-32.5	-42.7	35.1	537.1	604.4	304.1
26500.0	363.1	-33.5	-43.6	35.0	527.8	603.1	302.5
27000.0	355.4	-34.4	-44.4	35.0**	518.5	602.0	302.0
27500.0	347.6	-35.6	-47.6	28.3**	510.5	600.2	301.9
28000.0	340.0	-37.2	-51.1	21.7**	501.9	598.5	302.2
28500.0	332.6	-38.6	-55.3	15.0**	493.9	596.7	302.6
29000.0	325.4	-39.9	-61.0	8.4**	486.0	594.9	302.4
29500.0	318.3	-41.3	-73.1	1.8**	478.3	593.2	301.6
30000.0	311.2	-42.4			469.8	591.8	300.6
30500.0	304.3	-43.3			461.2	590.6	299.5
31000.0	297.5	-44.3			452.9	589.3	298.3
31500.0	290.7	-45.5			445.0	587.7	297.2
32000.0	284.1	-46.8			437.2	586.2	296.2
32500.0	277.7	-48.0			429.6	584.6	295.5
33000.0	271.4	-49.2			422.1	583.1	294.6
33500.0	265.2	-50.3			414.5	581.6	293.8
34000.0	259.1	-51.2			406.6	580.4	292.7
34500.0	253.1	-52.1			398.9	579.2	290.9
35000.0	247.2	-53.1			391.5	577.8	288.9
35500.0	241.4	-54.2			384.2	576.4	287.7
36000.0	235.8	-55.3			377.0	575.1	286.6
36500.0	230.2	-56.3			369.8	573.7	286.7
37000.0	224.8	-57.3			362.9	572.3	286.8
37500.0	219.4	-58.1			355.5	571.3	286.7
38000.0	214.2	-58.7			348.0	570.4	286.6
38500.0	209.1	-59.4			340.7	569.6	286.2
39000.0	204.1	-60.1			333.6	568.7	285.8
39500.0	199.2	-60.7			326.6	567.8	285.1
40000.0	194.3	-61.3			319.5	567.1	284.4
40500.0	189.6	-61.9			312.6	566.5	283.3
41000.0	185.0	-62.4			305.9	565.5	282.2
41500.0	180.5	-63.0			299.3	564.7	281.1
42000.0	176.2	-63.6			292.8	564.0	280.1
42500.0	171.9	-63.8			286.1	563.6	281.1
43000.0	167.7	-63.9			279.1	563.5	282.0

\*\* AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.00 FEET MSL  
 17 DEC. 61 0840 HRS MST  
 ASCENSION NO. 145

UPPER AIR DATA  
 3510020745  
 WHITE SANDS

GEODETIC COORDINATES  
 32.40043 LAT DEG  
 106.37033 LON DEG

TABLE 15 CON'T

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL.HUM. PERCENT	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(IN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
43500.0	16.6	-64.0	272.4	563.5	283.7	71.1	1.000061		
44000.0	159.6	-63.8	265.6	563.7	285.4	74.1	1.000059		
44500.0	155.7	-63.4	258.6	564.2	286.2	76.1	1.000058		
45000.0	151.9	-63.0	251.8	564.7	286.7	77.6	1.000056		
45500.0	148.2	-63.1	245.8	564.6	286.8	77.5	1.000055		
46000.0	144.6	-63.8	240.6	563.7	286.1	75.2	1.000054		
46500.0	141.0	-63.8	234.7	563.7	285.6	72.6	1.000052		
47000.0	137.6	-63.8	229.0	563.7	286.0	67.7	1.000051		
47500.0	134.2	-64.5	224.1	562.8	286.5	62.8	1.000050		
48000.0	130.9	-64.6	218.7	562.6	288.8	60.2	1.000049		
48500.0	127.7	-64.2	213.0	563.1	291.6	58.1	1.000047		
49000.0	124.6	-64.0	207.6	563.4	294.1	56.5	1.000046		
49500.0	121.6	-64.2	202.6	563.2	296.5	55.3	1.000045		
50000.0	118.6	-64.3	197.8	563.0	297.9	53.6	1.000044		
50500.0	115.7	-64.4	193.1	562.8	298.2	51.2	1.000043		
51000.0	112.8	-65.0	188.9	562.0	297.7	49.2	1.000042		
51500.0	110.1	-64.9	184.1	562.2	295.4	48.2	1.000041		
52000.0	107.4	-65.6	180.2	561.3	293.9	47.3	1.000040		
52500.0	104.7	-65.5	175.7	561.4	289.3	47.2	1.000039		
53000.0	102.1	-65.5	171.3	561.4	285.7	47.2	1.000038		
53500.0	99.6	-65.5	167.1	561.4	283.8	47.9	1.000037		
54000.0	97.2	-65.8	163.3	560.9	282.6	46.7	1.000036		
54500.0	94.8	-66.2	159.5	560.5	282.3	49.2	1.000035		
55000.0	92.5	-65.9	155.4	560.8	283.0	48.8	1.000034		
55500.0	90.2	-65.7	151.4	561.1	284.9	48.6	1.000033		
56000.0	88.0	-65.4	147.5	561.5	285.9	46.6	1.000033		
56500.0	85.8	-65.2	143.7	561.8	286.9	44.2	1.000032		
57000.0	83.7	-64.9	140.0	562.2	288.2	42.1	1.000031		
57500.0	81.6	-63.2	135.4	564.5	290.1	40.8	1.000030		
58000.0	79.6	-63.9	132.6	563.5	292.1	39.5	1.000030		
58500.0	77.7	-65.1	130.1	561.9	296.0	37.4	1.000029		
59000.0	75.8	-65.1	126.9	561.9	301.3	35.2	1.000028		
59500.0	73.9	-64.5	123.4	562.8	307.2	33.4	1.000027		
60000.0	72.1	-64.0	120.1	563.4	312.2	31.2	1.000027		
60500.0	70.4	-63.5	118.9	564.1	317.9	29.3	1.000026		
61000.0	68.6	-64.8	114.7	562.4	321.0	28.2	1.000026		
61500.0	67.0	-64.3	111.7	562.9	319.2	28.0	1.000025		
62000.0	65.3	-63.9	108.3	563.6	316.9	27.9	1.000024		
62500.0	63.7	-63.4	105.9	564.2	314.2	26.5	1.000024		
63000.0	62.2	-63.0	103.1	564.8	311.0	24.2	1.000023		

STATION ALTITUDE 3989.00 FEET MSL  
 117 UTC. 81 0840 IRS MST  
 ASCENSION 10. 745

UPPER ALKUMA  
3510020745  
WHITE SANDS

STODET 1, COORDINATES  
52° 40' 03" LAT 106° 37' 03" LON 086° 00' 00" UEG

TABLE 15 CON'T

GEOMETRIC ALTITUDE MILLIBARS	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT CENTIGRADE	EL.HUM. PERCENT	SOLID OF GEM/CUBIC METER	DENSITY GM/CUBIC	SOUND KNOTS	WIND DATA INFLCTION LINES KNOTS (IN)	SPEED KNOTS	REFRACTION OR REFRACTION
63500.0	60.7	-62.6		100.4	565.2	307.4	22.0			
64000.0	59.2	-62.8		98.0	565.0	306.1	18.0			
64500.0	57.8	-63.0		95.7	564.8	305.4	13.8			
65000.0	56.4	-63.2		93.5	564.5	303.6	9.9			
65500.0	55.0	-63.3		91.3	564.3	302.6	6.4			
66000.0	53.6	-63.5		89.1	564.1	301.6	6.8			
66500.0	52.3	-63.7		87.0	563.8	297.4	8.1			
67000.0	51.1	-63.9		85.0	563.6	294.1	13.5			
67500.0	49.8	-64.1		83.0	563.3	292.7	18.8			
68000.0	48.6	-64.3		81.2	562.7	292.2	24.5			
68500.0	47.4	-63.8		78.9	563.6	292.0	30.3			
69000.0	46.3	-63.2		76.8	564.5	291.9	36.1			
69500.0	45.2	-62.5		74.7	565.4	292.9	36.9			
70000.0	44.1	-61.9		72.7	566.3	293.9	37.2			
70500.0	43.0	-61.2		70.7	567.1	294.3	38.6			
71000.0	42.0	-60.6		68.8	568.0	292.0	46.5			
71500.0	40.9	-60.6		67.1	568.0	290.3	54.4			
72000.0	40.0	-60.6		65.5	568.0	287.3	59.5			
72500.0	39.0	-60.9		64.0	567.6	281.6	60.8			
73000.0	38.1	-61.4		62.6	567.0	276.5	62.6			
73500.0	37.2	-61.6		61.2	568.7	267.2	52.1			
74000.0	36.3	-61.1		59.6	567.2	248.0	38.2			
74500.0	35.4	-60.7		58.0	567.8	215.9	32.2			
75000.0	34.5	-60.1		56.5	568.7					
75500.0	33.7	-59.1		54.9	570.0					
76000.0	32.9	-58.1		53.3	571.4					

STATION ALTITUDE 3989.00 FEET MSL  
 17 DEC. 61  
 ASCENSIO, NO. 745

MANDATORY LEVELS  
 3510' 020745  
 WHITE SANDS  
 TABLE 16

GEODETIC COORDINATES  
 32.40043 LAT DEG  
 106.37033 LON DEG

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE DEGREES	AIR DEWPOINT CENTIGRADE	REL.HUM. PERCENT	WIND DATA	
					FEET	DEGREES CENTIGRADE
850.0	5046.	3.7	-5.0	53.	12.2	7.3
800.0	6699.	2.8	-6.9	49.	18.6	6.4
750.0	8408.	-0.8	-6.3	50.	331.7	15.3
700.0	10218.	-2.3	-9.9	56.	296.4	21.5
650.0	12153.	-2.8	-15.5	37.	306.9	34.7
600.0	14221.	-6.2	-16.2	38.	312.1	40.6
550.0	16436.	-10.2	-22.1	37.	307.0	41.4
500.0	18817.	-16.6	-27.8	37.	304.8	42.9
450.0	21393.	-21.5	-30.4	44.	305.5	45.1
400.0	24203.	-28.0	-38.4	36.	305.9	49.7
350.0	27300.	-35.4	-46.6	30.**	301.7	50.6
300.0	30754.	-43.9	-52.6	298.8	51.8	
250.0	34690.	-52.6	-60.6	289.9	58.9	
200.0	39322.	-60.6	-63.7	285.2	71.6	
175.0	42030.	-63.7	-63.7	280.4	64.6	
150.0	45133.	-62.8	-62.8	287.0	78.3	
125.0	48798.	-64.0	-65.4	293.8	56.8	
100.0	53264.	-65.4	-63.7	284.0	47.7	
80.0	57721.	-63.7	-63.4	291.6	39.8	
70.0	60399.	-63.4	-62.7	318.8	29.1	
60.0	63503.	-62.7	-64.0	306.5	20.6	
50.0	67178.	-64.0	-60.6	292.9	17.7	
40.0	71699.	-60.6	-	287.9	59.4	

\*\* AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.00 FEET MSL  
17 DEC. 01 0840 IRS MST  
ASCENSION NO. 223

SIGNIFICANT LEVEL DATA  
3510030220  
JALLEN  
TABLE 17

GEODETIC COORDINATES  
33.16712 LAT UEG  
106.49511 LON UEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE FEET	TEMPERATURE AIR DEGREES	DEWPOINT CENTIGRADE	REL. HUM. PERCENT
883.2	4051.0	3.5	-7.0	46.0
875.2	4294.0	4.8	-9.3	35.0
865.6	4590.6	7.2	-6.4	32.0
850.0	5080.7	6.2	-10.1	30.0
798.0	6768.9	2.8	-10.8	36.0
759.8	8070.6	1.8	-10.0	41.0
731.0	9090.2	-4	-11.1	44.0
717.9	9564.6	-1.3	-15.1	34.0
700.0	10226.4	-7	-19.7	22.0
684.6	10809.8	-1.0	-20.0	22.0
595.6	14413.8	-7.9	-26.9	20.0
558.6	16044.0	-10.6	-26.6	21.0
510.5	18299.3	-15.7	-31.6	24.0
500.0	18814.1	-16.4	-32.2	24.0
400.0	24206.3	-28.3	-41.7	26.0
379.9	25416.0	-31.3	-44.0	27.0
358.7	26748.3	-33.6	-46.0	27.0
331.5	28552.7	-38.0	-49.9	27.0
300.0	30789.5	-43.6		
271.4	32984.6	-48.3		
250.0	34747.3	-53.0		
221.6	37253.4	-57.2		
200.0	39376.3	-61.8		
189.1	40515.9	-63.1		
176.4	41928.4	-62.2		
155.9	44443.7	-62.3		
150.0	45231.2	-61.2		
117.9	50136.0	-63.3		
103.1	52823.2	-63.3		
100.0	53428.6	-67.6		
88.1	55263.3	-64.7		
85.3	56617.3	-62.3		
70.9	60381.8	-62.9		
70.0	60642.5	-61.3		
57.9	64196.1	-65.1		
50.0	67450.4	-64.9		
41.5	71244.6	-60.6		
30.0	77711.3	-57.5		
21.7	84759.6	-54.3		
20.0	86528.9	-52.1		

STATION ALTITUDE 4051.00 FEET MSL  
17 DEC. 61 0840 HRS MST  
ASCENSION NO. 223

SIGNIFICANT LEVEL DATA  
3510030223  
JALLEN

TABLE 17 CON'T

PRESSURE GEOMETRIC MILLIBARS MSL FST	TEMPERATURE ALTIMETER DEGREES CENTIGRADE	REL. HUM. PERCENT
17.1 89894.0		
		-51.1

GEODETIC COORDINATES  
33.16712 LAT DEG  
106.49511 LON DEG

STATION ALTITUDE 4051.00 FEET MSL  
17 DEC. 61 0840 HRS MST  
ASCENSION NO. 223

UPPER AIR DATA  
3510030222  
JALLEN  
TABLE 18

GEODETIC COORDINATES  
33.16712 LAT DEG  
106.49511 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	SPEED OF SOUND METERS	WIND DATA		INDEX OF REFRACTION
					DIRECTION DEGREES (TN)	SPEED KNOTS	
4051.0	883.2	3.5	-7.0	46.0	1110.4	648.5	4.1
4500.0	868.5	6.5	-8.6	32.9	1080.6	651.9	3.8
5000.0	852.6	6.4	-9.8	30.3	1061.2	651.7	3.6
5500.0	836.8	5.4	-10.2	31.5	1045.3	650.6	3.4
6000.0	821.3	4.3	-10.4	33.3	1029.7	649.4	3.2
6500.0	806.1	3.3	-10.6	35.0	1014.3	648.2	3.0
7000.0	791.1	2.6	-10.6	36.9	998.0	647.4	2.8
7500.0	776.3	2.2	-10.3	38.8	980.7	646.9	2.6
8000.0	761.8	1.9	-10.1	40.7	963.7	646.5	2.5
8500.0	747.5	.9	-10.5	42.3	949.0	645.3	2.4
9000.0	733.5	-2.2	-11.0	43.7	934.9	644.1	2.3
9500.0	719.7	-1.2	-14.5	35.4	920.9	642.8	2.2
10000.0	706.1	-.9	-17.9	26.1	902.8	643.1	2.1
10500.0	692.7	-.8	-19.8	22.0	885.6	643.1	2.0
11000.0	679.6	-1.4	-20.3	21.9	870.5	642.5	1.9
11500.0	666.6	-2.3	-21.3	21.6	856.9	641.3	1.8
12000.0	653.8	-3.3	-22.2	21.3	843.5	640.2	1.7
12500.0	641.3	-4.2	-23.2	21.1	830.1	639.0	1.6
13000.0	629.0	-5.2	-24.2	20.8	817.4	637.9	1.5
13500.0	617.0	-6.2	-25.1	20.5	804.6	636.7	1.4
14000.0	605.2	-7.1	-26.1	20.2	792.1	635.6	1.3
14500.0	593.6	-8.0	-27.0	20.1	779.7	634.4	1.2
15000.0	582.0	-8.9	-27.5	20.4	766.9	633.5	1.1
15500.0	570.7	-9.7	-28.0	20.7	754.3	632.5	1.0
16000.0	559.6	-10.5	-28.6	21.0	742.0	631.5	.9
16500.0	548.5	-11.6	-29.2	21.6	730.4	630.1	.8
17000.0	537.7	-12.8	-29.8	22.3	719.1	628.8	.7
17500.0	527.1	-13.9	-30.5	22.9	708.0	627.4	.6
18000.0	516.6	-15.0	-31.2	23.6	697.0	626.0	.5
18500.0	506.4	-16.9	-31.8	24.0	685.7	624.9	.4
19000.0	496.2	-16.8	-32.5	24.1	674.1	623.8	.3
19500.0	486.0	-17.9	-33.4	24.3	663.2	622.5	.2
20000.0	476.1	-19.0	-34.3	24.4	652.4	621.1	.1
20500.0	466.3	-20.1	-35.1	24.6	641.6	619.8	
21000.0	456.8	-21.2	-36.0	24.8	631.5	618.4	
21500.0	447.4	-22.3	-36.9	25.0	621.3	617.1	
22000.0	438.2	-23.4	-37.8	25.2	611.2	615.7	
22500.0	429.3	-24.5	-38.7	25.4	601.4	614.3	
23000.0	420.5	-25.6	-39.6	25.6	591.7	613.0	
23500.0	411.9	-26.7	-40.5	25.7	582.2	611.6	

STATION ALTITUDE 4051.00 FEET MSL  
17 UEC. 01 0840 HRS MET  
ASCENSION NO. 223

UPPER AIR DATA  
3510030225  
JALLEN  
TABLE 18 CON'T

COORDINATES  
53.16712 LAT UEG  
106.49511 LON UEG

GEOMETRIC PRESSURE ALTITUDE MILLIBARS MSL FEET	TEMPERATURE AIR DEPOINT DEGREES CENTIGRADE	EL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRCTN DEGREES (IN)	INDEX OF REFRACTION
24000.0	405.4	-27.8	-41.4	25.9	572.8	010.2
24500.0	395.0	-29.0	-42.3	26.2	563.6	008.7
25000.0	385.7	-30.3	-43.2	26.7	554.6	007.2
25500.0	376.5	-31.4	-44.1	27.0	545.5	005.7
26000.0	370.5	-32.3	-44.9	27.0	535.8	004.6
26500.0	362.6	-33.2	-45.7	27.0	526.3	003.5
27000.0	354.8	-34.2	-46.6	27.0	517.2	002.2
27500.0	347.1	-35.4	-47.7	27.0	508.6	001.7
28000.0	339.6	-36.7	-48.7	27.0	500.2	000.2
28500.0	332.3	-37.9	-49.8	27.0	491.9	597.6
29000.0	324.9	-39.1	-52.0	21.6**	483.7	596.0
29500.0	317.8	-40.4	-56.5	15.6**	475.6	594.4
30000.0	310.6	-41.6	-61.4	9.5**	467.6	592.8
30500.0	303.9	-42.9	-69.6	3.5**	459.7	591.2
31000.0	297.1	-44.1	-44.1	451.6	589.7	503.2
31500.0	290.4	-45.1	-45.1	443.7	588.3	503.0
32000.0	283.9	-46.2	-46.2	435.7	586.9	503.0
32500.0	277.5	-47.3	-47.3	427.9	585.5	503.0
33000.0	271.2	-48.3	-48.3	420.3	584.1	502.7
33500.0	265.0	-49.7	-49.7	413.0	582.4	502.4
34000.0	258.9	-51.0	-51.0	405.9	580.9	502.0
34500.0	252.9	-52.3	-52.3	399.0	578.9	501.6
35000.0	247.0	-53.6	-53.6	392.0	577.2	501.2
35500.0	241.2	-54.9	-54.9	384.9	575.6	500.9
36000.0	235.5	-56.1	-56.1	377.9	574.0	500.2
36500.0	229.9	-57.3	-57.3	371.1	572.3	499.9
37000.0	224.5	-58.6	-58.6	364.5	570.7	499.4
37500.0	219.2	-59.9	-59.9	357.3	569.4	498.9
38000.0	213.9	-60.1	-60.1	349.7	568.6	498.2
38500.0	208.7	-60.7	-60.7	342.3	567.8	497.6
39000.0	203.7	-61.3	-61.3	335.0	567.0	496.9
39500.0	198.8	-61.9	-61.9	327.9	566.2	496.2
40000.0	194.0	-62.5	-62.5	320.8	565.4	495.5
40500.0	189.2	-63.1	-63.1	313.8	564.6	494.8
41000.0	184.6	-62.8	-62.8	305.8	565.0	494.1
41500.0	180.2	-62.5	-62.5	297.9	565.5	493.4
42000.0	175.8	-62.2	-62.2	290.3	565.8	492.7
42500.0	171.5	-62.0	-62.0	282.3	565.8	492.0
43000.0	167.4	-62.0	-62.0	276.4	565.8	491.3
43500.0	163.3	-62.0	-62.0	269.7	565.7	490.6

\*\* AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.00 FEET MSL  
 17 DEC. 61 0840 HRS MST  
 ASCENSION NO. 223

UPPER AIR DATA  
 3510030223  
 JALLEN

GEODETIC COORDINATES  
 33°19'12" LAT DEG  
 106°49'51" LON DEG

GEOMETRIC PRESSURE ALTITUDE  
 MILLIBARS DEGREES CENTIGRADE

GEOMETRIC PRESSURE ALTITUDE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL.HUM. PERCENT	REL.HUM. GM/CURIC	SPEED OF SOUND METER	WEIGHTS (IN)	INCLINATION KNOTS	INDEX OF REFRACTION
44000.0	159.3	-62.3		263.2	565.7	284.5	79.9
44500.0	155.5	-62.2		256.8	565.8	284.6	79.6
45000.0	151.7	-61.9		249.7	566.7	285.1	79.3
45500.0	148.0	-61.3		243.4	567.0	285.2	78.1
46000.0	144.4	-61.5		237.8	566.7	285.2	76.5
46500.0	140.9	-61.7		232.2	566.4	285.2	74.9
47000.0	137.5	-62.0		226.6	566.2	286.9	71.8
47500.0	134.2	-62.2		221.6	565.9	286.7	68.8
48000.0	130.9	-62.4		216.4	565.6	290.7	65.3
48500.0	127.8	-62.6		211.4	565.3	293.2	60.8
49000.0	124.7	-62.8		206.5	565.0	296.1	56.5
49500.0	121.6	-63.0		201.7	564.7	297.4	52.6
50000.0	118.7	-63.2		197.0	564.4	298.2	48.9
50500.0	115.8	-64.0		192.8	563.9	298.5	45.8
51000.0	112.9	-64.9		188.9	562.2	296.3	44.7
51500.0	110.1	-65.8		185.1	560.9	294.0	43.6
52000.0	107.4	-66.8		181.3	559.7	291.1	43.6
52500.0	104.8	-67.7		177.7	558.4	287.8	44.4
53000.0	102.2	-68.1		173.6	557.9	284.6	45.3
53500.0	99.6	-67.5		168.8	558.7	285.0	46.8
54000.0	97.2	-66.9		164.2	559.4	281.7	48.3
54500.0	94.8	-66.4		159.7	560.2	280.9	49.6
55000.0	92.4	-65.8		155.3	561.0	281.6	49.6
55500.0	90.2	-65.2		151.1	561.8	282.3	49.6
56000.0	87.9	-64.6		146.9	562.6	283.7	49.3
56500.0	85.8	-62.7		142.0	565.1	285.0	48.7
57000.0	83.7	-62.4		138.4	565.6	287.5	48.2
57500.0	81.7	-62.4		135.0	565.5	289.7	47.4
58000.0	79.7	-62.5		131.8	565.4	292.0	46.5
58500.0	77.8	-62.6		128.7	565.3	294.3	45.7
59000.0	75.9	-62.7		125.6	565.2	296.7	41.5
59500.0	74.0	-62.8		122.6	565.1	299.0	37.4
60000.0	72.2	-62.8		119.7	565.0	303.0	33.4
60500.0	70.5	-62.2		116.4	565.9	306.3	29.4
61000.0	68.8	-61.7		113.3	566.6	310.5	25.5
61500.0	67.1	-62.1		110.8	565.9	314.4	23.0
62000.0	65.5	-62.6		108.3	565.2	315.9	22.6
62500.0	63.9	-63.1		106.0	564.6	317.5	22.1
63000.0	62.3	-63.6		103.6	563.9	318.4	21.2
63500.0	60.8	-64.1		101.3	563.3	316.9	19.8

TABLE 18 CON'T

STATION ALTITUDE 4051.00 FEET MSL  
17 DEC. 01 0840 HRS MST  
ASCENSION NO. 223

UPPER AIR DATA  
3510030220  
JALLEN  
TABLE 18 CON'T

GEODETIC COORDINATES  
33-15712 LAT DEG  
106-49511 LONG DEG

GEOMETRIC ALTITUDE MILLIBARS MSL FEE	PRESSURE MILLIBARS	TEMPERATURE DEGREES CENTIGRADE	DEWPOINT PERCENT	LENTS MM/CURIC METER	SIGHT OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						INCLINOMETER DEGREES (IN)	SPEED KNOTS	
64000.0	59.3	-64.6		99.1	562.6	319.4	18.4	1.0000022
64500.0	57.9	-65.1		96.9	561.9	319.9	15.2	1.0000022
65000.0	56.5	-65.1		94.5	562.0	320.7	11.3	1.0000021
65500.0	55.1	-65.0		92.4	562.0	322.4	7.4	1.0000021
66000.0	53.7	-65.0		89.9	562.1	311.9	5.6	1.0000020
66500.0	52.4	-65.0		87.7	562.1	292.7	4.2	1.0000020
67000.0	51.1	-64.9		85.5	562.2	264.4	3.7	1.0000019
67500.0	49.9	-64.8		83.4	562.3	271.7	6.2	1.0000019
68000.0	48.7	-64.3		81.2	563.0	274.9	8.7	1.0000018
68500.0	47.5	-63.7		79.0	563.8	277.3	11.3	1.0000018
69000.0	46.3	-63.1		76.9	564.6	283.7	14.2	1.0000017
69500.0	45.2	-62.6		74.8	565.3	287.6	17.3	1.0000017
70000.0	44.1	-62.0		72.8	566.1	289.9	20.1	1.0000016
70500.0	43.0	-61.4		70.8	566.8	293.9	21.5	1.0000016
71000.0	42.0	-60.9		68.9	567.6	297.9	23.0	1.0000015
71500.0	41.0	-60.5		67.1	568.1	287.1	24.4	1.0000015
72000.0	40.0	-60.3		65.5	568.4	285.2	24.2	1.0000015
72500.0	39.1	-60.0		63.8	568.7	279.1	23.9	1.0000014
73000.0	38.1	-59.8		62.3	569.1	275.9	23.9	1.0000014
73500.0	37.2	-59.6		60.7	569.4	272.2	23.4	1.0000014
74000.0	36.3	-59.3		59.2	569.7	269.9	22.8	1.0000013
74500.0	35.5	-59.1		57.7	570.0	267.5	22.2	1.0000013
75000.0	34.6	-58.9		56.3	570.3	266.7	21.8	1.0000013
75500.0	33.8	-58.6		54.9	570.6	268.5	21.5	1.0000012
76000.0	33.0	-58.4		53.5	570.9	270.4	21.3	1.0000012
76500.0	32.2	-58.2		52.2	571.2	272.4	21.2	1.0000012
77000.0	31.4	-57.9		50.9	571.5	274.6	22.4	1.0000011
77500.0	30.7	-57.7		49.6	571.8	277.0	23.6	1.0000011
78000.0	30.0	-57.5		48.4	572.1	279.9	24.8	1.0000011
78500.0	29.3	-57.3		47.2	572.4	280.0	26.5	1.0000011
79000.0	28.6	-57.0		46.0	572.7	280.4	28.4	1.0000010
79500.0	27.9	-56.8		44.9	573.0	280.6	30.3	1.0000010
80000.0	27.2	-56.5		43.8	573.4	281.1	32.3	1.0000010
80500.0	26.6	-56.3		42.7	573.7	281.3	34.6	1.0000010
81000.0	26.0	-56.1		41.7	574.0	281.4	36.8	1.0000009
81500.0	25.4	-55.9		40.7	574.3	281.5	39.0	1.0000009
82000.0	24.8	-55.6		39.7	574.6	281.7	43.3	1.0000009
82500.0	24.2	-55.4		38.7	574.9	281.8	48.3	1.0000009
83000.0	23.6	-55.1		37.8	575.2	281.9	53.2	1.0000008
83500.0	23.1	-54.9		36.8	575.5	282.0	56.7	1.0000008

STATION ALTITUDE 4051.00 FEET MSL  
 17 DEG. 41' 0840 HRS 151  
 ASCENSION NO. 223

UPPER AIR DATA  
 35100300223  
 JALLIN

TABLE 18 CON'T

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEWPONT DEGREES	EL.HUM. PERCENT	SPED OF SOUND METER METER	WIND DATA DIRECTION, ULGATES (IN) KNOTS	INDEX OF REFRACTION
84000.0	22.5	-54.7		35.9	575.8	278.9
84500.0	22.0	-54.4		35.0	576.1	276.7
85000.0	21.5	-54.0		34.2	576.7	274.5
85500.0	21.0	-53.4		33.3	577.5	271.2
86000.0	20.5	-52.8		32.4	578.3	267.0
86500.0	20.0	-52.1		31.6	579.2	56.5
87000.0	19.6	-52.0		30.8	579.4	1.000007
87500.0	19.1	-51.8		30.1	579.6	1.000007
88000.0	18.7	-51.7		29.4	579.8	1.000007
88500.0	18.2	-51.5		28.7	580.0	1.000006
89000.0	17.8	-51.4		28.0	580.2	1.000006
89500.0	17.4	-51.2		27.3	580.4	1.000006

GEODETIC COORDINATES  
 33.1012 LAT DEG  
 106.49511 LON DEG

STATION ALTITUDE 4051.00 FEET MSL  
 17 DEC. 61 0840 HRS MST  
 ASCENSION NO. 223

MANDATORY LEVELS  
 3510030220  
 JALLEN

TABLE 19

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
		AIR DEGREES	WMPNT CENTIGRACE		DIRECTION , EGRESS (TN)	SPEED KNOIS
850.0	5077.	6.2	-10.1	30.	322.0	5.7
800.0	6697.	2.9	-10.7	36.	320.6	11.8
750.0	8407.	1.1	-10.4	42.	287.9	10.9
700.0	10217.	-0.7	-19.7	22.	279.9	21.5
650.0	12150.	-3.6	-22.5	21.	295.1	31.6
600.0	14210.	-7.5	-20.5	20.	307.4	40.1
550.0	16416.	-11.5	-29.1	22.	314.2	47.0
500.0	18789.	-16.4	-32.2	24.	305.5	51.0
450.0	21361.	-22.0	-30.7	25.	297.7	56.6
400.0	24168.	-28.3	-41.7	26.	302.0	61.2
350.0	27266.	-35.0	-47.3	27.	303.4	64.1
300.0	30731.	-43.6			302.6	68.2
250.0	34674.	-53.0			296.6	61.0
200.0	39205.	-61.8			283.8	68.4
175.0	41988.	-62.2			281.2	76.0
150.0	45114.	-61.2			285.2	79.0
125.0	48813.	-62.8			295.7	57.1
100.0	53269.	-67.6			283.2	46.5
80.0	57739.	-62.5			291.5	46.7
70.0	60440.	-61.3			307.1	28.5
60.0	63556.	-64.4			319.1	19.1
50.0	67204.	-64.9			270.9	5.8
40.0	71724.	-60.2			283.4	24.2
30.0	77648.	-57.5			278.8	24.6
25.0	81442.	-55.7			281.6	40.9
20.0	86134.	-52.1			263.9	56.5

\*\* AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.37 FEET MSL  
17 DEC. 61 0930 HRS EST  
ASCENSION NO. 230

SIGNIFICANT LEVEL DATA  
3510100236  
LC-3/  
TABLE 20

GEODDITIC COORDINATES  
32.40175 LAT LEG  
106.31232 LONG LEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE DEGREES CELSIUS	AIR DEWPOINT DEGREES CELSIUS	RELATIVE HUMIDITY PERCENT
686.3	4051.4	6.0	-4.2	48.0
850.0	5171.4	3.6	-6.9	46.0
796.4	6907.5	3.4	-9.9	37.0
748.8	8545.0	1.8	-9.4	43.0
729.8	9224.5	*3	-7.9	54.0
711.2	9803.4	-7	-12.3	41.0
700.0	10321.6	1.3	-21.7	16.0
612.0	13835.7	-4.4	-26.4	16.0
500.0	18960.3	-15.5	-34.9	17.0
463.2	20845.3	-19.0	-37.3	18.0
400.0	29380.2	-27.2	-43.7	19.0
347.4	27666.4	-35.5	-50.8	19.0
300.0	30908.4	-43.9		
250.0	34917.1	-53.3		
232.0	36491.9	-56.1		
200.0	39566.2	-60.9		
164.0	43596.8	-64.6		
150.0	45401.8	-62.7		
106.6	52295.8	-65.7		
100.0	53578.3	-65.3		
175.0	59339.1	-66.7		
70.0	60721.1	-65.3		
64.2	62477.0	-61.2		
50.0	67560.7	-64.7		
34.2	75371.9	-56.7		

STATION ALTITUDE 4051.37 FEET MSL  
17 DEC. 61 0930 HRS MST  
ASCENSION NO. 230

UPPLR AIR DATA  
3510100250  
LC-37

TABLE 21

GEOMETRICAL ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE DEGREES C	HUMIDITY PERCENT	AIR DEPOINT CENTIGRADE	WIND DATA		INDEX OF REFRACTION
					WIND SPEED KNOTS	DIRECTION DEGREES (IN) KNOTS	
4051.4	880.3	6.0	-4.2	48.0	1103.9	051.5	0.0
4500.0	871.6	5.0	-5.3	47.2	1089.5	050.4	1.2
5000.0	855.5	4.0	-6.5	46.3	1073.0	049.1	1.9
5500.0	839.6	3.6	-7.4	44.3	1055.3	048.0	2.2
6000.0	824.0	3.5	-8.3	41.7	1036.0	046.5	1.1
6500.0	808.7	3.4	-9.1	39.1	1017.0	044.4	0.2
7000.0	793.6	3.3	-9.8	37.3	998.7	042.2	0.3
7500.0	778.8	2.8	-9.7	39.2	981.7	047.6	0.3
8000.0	764.3	2.3	-9.5	41.0	965.1	047.1	0.4
8500.0	750.1	1.8	-9.4	42.8	948.8	046.5	0.4
9000.0	735.0	1.6	-8.3	50.4	934.4	045.3	0.4
9500.0	722.2	-0.1	-9.6	48.7	920.0	044.2	0.5
10000.0	708.6	-0.2	-13.7	35.2	903.5	043.9	0.5
10500.0	695.2	1.0	-21.9	16.0	882.9	045.2	0.6
11000.0	682.1	-0.2	-22.6	16.0	868.8	044.3	0.7
11500.0	669.2	-0.6	-23.5	16.0	854.9	043.3	0.7
12000.0	656.5	-1.4	-23.9	16.0	841.2	042.3	0.7
12500.0	644.1	-2.2	-24.6	16.0	827.8	041.4	0.7
13000.0	631.9	-3.0	-25.3	16.0	814.6	040.4	0.7
13500.0	619.9	-3.9	-25.9	16.0	801.6	039.4	0.7
14000.0	606.0	-4.8	-26.6	16.0	788.9	038.4	0.7
14500.0	596.2	-5.8	-27.5	16.1	776.6	037.1	0.7
15000.0	584.5	-6.9	-28.3	16.2	764.6	035.8	0.7
15500.0	573.1	-8.0	-29.1	16.3	752.7	034.5	0.7
16000.0	561.9	-9.1	-29.9	16.4	741.1	033.2	0.7
16500.0	551.0	-10.2	-30.3	16.5	729.6	031.9	0.7
17000.0	540.2	-11.3	-31.6	16.6	718.3	030.6	0.7
17500.0	529.6	-12.3	-32.5	16.7	707.2	029.2	0.7
18000.0	519.3	-13.4	-33.3	16.8	696.3	027.9	0.7
18500.0	509.2	-14.5	-34.1	16.9	685.6	026.6	0.7
19000.0	499.2	-15.6	-35.0	17.0	675.0	025.3	0.7
19500.0	489.4	-16.5	-35.6	17.3	665.8	024.2	0.7
20000.0	479.4	-17.4	-36.2	17.6	052.9	023.0	0.7
20500.0	469.7	-18.4	-36.8	17.8	042.1	021.9	0.7
21000.0	460.2	-19.4	-37.5	18.0	031.6	020.7	0.7
21500.0	450.8	-20.5	-38.4	18.2	021.5	019.3	0.7
22000.0	441.5	-21.7	-39.4	18.5	011.5	017.8	0.7
22500.0	432.5	-22.8	-40.3	18.5	016.4	016.4	0.7
23000.0	423.6	-24.0	-41.2	18.6	015.0	015.2	0.7
23500.0	414.9	-25.2	-42.1	18.8	013.5	013.5	0.7

STATION ALTITUDE 4051.37 FEET MSL  
17 DEC. F1 0930 HRS LT  
ASCENSION NO. 232

UPPER AIR DATA  
351000Z, LC-3/

TABLE 21 CONT

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	EL. HGT. DEGREES	DENSITY PERCENT	GM/CUIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTN (DEGREES) WINDS (IN)	INDEX OF REFRACTION
24000.0	406.4	-26.3	-43.0	18.9	573.4	812.1	301.0	46.9
24500.0	397.9	-27.5	-43.9	19.0	564.3	610.6	300.0	46.7
25000.0	389.5	-28.8	-45.0	19.0	555.2	609.1	300.0	47.9
25500.0	381.2	-30.0	-46.1	19.0	546.2	607.5	301.0	49.6
26000.0	373.1	-31.3	-47.2	19.0	537.4	605.9	303.9	50.8
26500.0	365.2	-32.6	-48.0	19.0	528.8	604.3	305.6	52.1
27000.0	357.5	-33.8	-49.3	19.0	520.3	602.7	304.9	50.3
27500.0	349.9	-35.1	-50.4	19.0	512.0	601.1	304.0	50.6
28000.0	342.3	-36.3	-52.4	17.1**	503.5	599.5	301.4	49.1
28500.0	334.8	-37.6	-55.0	14.2**	495.1	597.9	298.6	47.8
29000.0	327.4	-38.9	-57.8	11.3**	486.9	596.3	297.4	47.5
29500.0	320.2	-40.2	-61.1	8.4**	478.8	594.7	295.9	47.3
30000.0	313.2	-41.4	-65.2	5.6**	470.9	593.0	294.4	47.7
30500.0	306.3	-42.7	-71.2	2.7**	463.1	591.4	293.1	48.1
31000.0	299.6	-44.0			455.4	589.8	292.6	49.0
31500.0	292.7	-45.2			447.3	588.2	292.2	49.7
32000.0	286.0	-46.4			439.4	586.7	293.0	50.0
32500.0	279.5	-47.5			431.6	585.2	293.6	50.2
33000.0	273.1	-48.7			424.0	583.6	293.8	50.8
33500.0	266.9	-49.9			416.5	582.1	293.6	51.3
34000.0	260.8	-51.1			409.2	580.5	292.5	52.4
34500.0	254.9	-52.3			402.0	578.9	291.4	53.6
35000.0	249.0	-53.4			394.8	577.4	289.6	55.7
35500.0	243.2	-54.3			387.2	576.3	288.5	57.8
36000.0	237.5	-55.2			379.6	575.1	287.6	59.6
36500.0	231.9	-56.1			372.2	573.9	287.2	61.2
37000.0	226.4	-56.9			364.7	572.9	286.4	61.7
37500.0	221.6	-57.7			357.3	571.9	285.5	61.6
38000.0	216.7	-58.5			350.0	570.8	284.6	62.2
38500.0	210.6	-59.2			342.9	569.8	283.8	63.1
39000.0	205.5	-60.0			335.0	568.8	283.1	64.4
39500.0	200.6	-60.8			329.1	567.7	282.6	66.0
40000.0	195.8	-61.3			321.9	567.0	281.9	66.9
40500.0	191.0	-61.8			314.8	566.4	280.7	67.1
41000.0	186.4	-62.2			307.3	565.8	279.7	67.3
41500.0	181.8	-62.7			301.0	565.2	278.7	67.8
42000.0	177.4	-63.1			294.3	564.6	277.6	68.3
42500.0	173.1	-63.6			287.6	564.0	276.5	69.0
43000.0	169.9	-64.1			281.4	563.3	275.1	69.7
43500.0	164.8	-64.5			275.1	562.7	274.7	69.1

\*\* AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.37 FEET MSL  
 17 DEC. 81 0930 HRS MST  
 ASCENSION NO. 230

UPPER AIR DATA  
 3516180230  
 LC-3/  
 TABLE 21 CON'T

GEODETIC COORDINATES  
 32°40'17.5 LAT DEG  
 106°31'23.2 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA "INCREASING" DIR-GRADS(11)	INDEX OF REFRACTION
44000.0	160.8	-64.2		268.0	563.2	280.0	1.000060
44500.0	150.8	-63.6		260.8	563.9	281.1	1.000058
45000.0	153.0	-63.1		253.8	564.6	280.4	1.000057
45500.0	149.3	-62.7		247.1	565.1	279.8	1.000055
46000.0	142.6	-63.0		241.3	564.8	279.2	1.000054
46500.0	142.1	-63.2		235.7	564.5	278.5	1.000052
47000.0	138.6	-63.4		230.2	564.2	280.2	1.000051
47500.0	135.2	-63.6		224.8	563.9	262.4	1.000050
48000.0	131.9	-63.8		219.5	563.6	284.9	61.6
48500.0	128.7	-64.0		216.3	563.3	287.6	63.5
49000.0	125.5	-64.3		209.3	563.1	290.1	65.6
49500.0	122.4	-64.5		204.4	562.8	291.4	64.3
50000.0	119.4	-64.7		199.6	562.5	292.3	63.1
50500.0	116.5	-64.9		194.9	562.2	293.0	61.2
51000.0	113.7	-65.0		190.4	561.9	293.4	58.8
51500.0	110.9	-65.4		185.9	561.6	293.7	56.5
52000.0	108.2	-65.6		181.5	561.3	292.5	55.2
52500.0	105.5	-65.6		177.1	561.2	291.3	53.8
53000.0	102.9	-65.5		172.7	561.4	289.2	52.9
53500.0	100.4	-65.3		168.3	561.6	286.6	52.3
54000.0	97.9	-65.4		164.2	561.5	284.4	51.8
54500.0	95.5	-65.5		160.2	561.4	284.0	51.6
55000.0	93.1	-65.6		156.4	561.2	283.5	51.4
55500.0	90.8	-65.5		152.6	561.0	284.8	51.8
56000.0	88.6	-65.9		148.9	560.9	286.5	52.3
56500.0	86.4	-66.0		145.3	560.7	288.0	52.8
57000.0	84.3	-66.1		141.8	560.5	289.4	53.4
57500.0	82.2	-66.3		138.4	560.4	290.7	54.0
58000.0	80.2	-66.4		135.1	560.2	291.5	54.0
58500.0	78.2	-66.5		131.8	561.4	292.2	53.9
59000.0	76.3	-66.6		128.7	559.9	292.7	53.5
59500.0	74.4	-66.5		125.4	560.0	293.0	52.5
60000.0	72.6	-66.0		122.1	560.7	293.2	51.4
60500.0	70.8	-65.5		118.8	561.4	293.3	50.3
61000.0	69.0	-64.6		115.4	562.5	293.4	49.2
61500.0	67.4	-63.5		111.9	564.1	293.5	47.4
62000.0	65.7	-62.3		108.6	565.7	293.5	44.8
62500.0	64.1	-61.2		105.4	567.1	293.6	42.0
63000.0	62.6	-61.6		103.0	569.7	293.6	37.7
63500.0	61.1	-61.1		100.7	569.2	293.6	33.4

STATION ALTITUDE 4051.37 FEET MSL  
 17 DEC. 81 0930 HRS MST  
 ASCENSION NO. 230

UPPER AIR DATA  
 35101180230  
 LC-37

TABLE 21 CONT'

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CENTIGRADE	REL.HUM. PERCENT	SPEED OF SOUND METERS	WIND DATA DIRECTION DEGREES (1N)	INDEX OF REFRACTION
64000.0	59.6	-62.2	98.4	565.8	293.6	30.3
64500.0	58.1	-62.6	96.2	565.3	293.6	27.4
65000.0	56.7	-62.9	94.0	564.8	293.6	24.0
65500.0	55.3	-63.3	91.8	564.4	293.6	19.6
66000.0	54.0	-63.6	89.8	563.9	293.6	15.3
66500.0	52.7	-64.0	87.7	563.5	293.6	12.2
67000.0	51.4	-64.3	85.7	563.0	293.6	9.5
67500.0	50.1	-64.7	83.8	562.5	293.6	7.2
68000.0	48.9	-64.3	81.6	563.1	293.6	6.6
68500.0	47.6	-63.7	79.5	563.8	293.6	10.0
69000.0	46.6	-63.2	77.4	564.5	293.6	11.1
69500.0	45.5	-62.7	75.3	565.1	293.6	11.7
70000.0	44.4	-62.2	73.3	565.8	293.6	12.3
70500.0	43.3	-61.7	71.4	566.5	293.6	12.5
71000.0	42.3	-61.2	69.5	567.2	293.6	12.7
71500.0	41.3	-60.7	67.7	567.9	293.6	13.1
72000.0	40.3	-60.2	65.9	568.6	293.6	13.8
72500.0	39.3	-59.6	64.2	569.3	293.6	13.7
73000.0	38.4	-59.1	62.5	569.9	293.6	12.1
73500.0	37.5	-58.6	60.8	570.6	293.6	10.6
74000.0	36.6	-58.1	59.2	571.3		1.000013
74500.0	35.7	-57.6	57.7	572.0		1.000013
75000.0	34.8	-57.1	56.1	572.7		1.000013

STATION ALTITUDE 4051.37 FEET MSL  
 17 DEC. 81 0930 HRS MST  
 ASCENSION NO. 230

MANDATORY LEVELS  
 3511180230  
 LC-37  
 TABLE 22

GEODETIC COORDINATES  
 32.40175 LAT DEG  
 106.31232 LON DEG

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE			RH. PERCENT	WIND DATA	
		DEGREES	DEGREES	CENTIGRADE		DIRECTION DEGREES (TN)	SPEED KNOTS
650.0	5168.	3.6	-6.9	46.	1.2	5.8	
800.0	6782.	3.4	-9.7	38.	357.0	14.1	
750.0	8495.	1.8	-9.4	43.	304.8	12.1	
700.0	10311.	1.5	-21.7	16.	297.7	24.4	
650.0	12256.	-1.8	-24.3	16.	305.4	35.9	
600.0	14330.	-5.5	-27.2	16.	311.1	37.5	
550.0	16549.	-10.3	-30.9	17.	311.5	39.1	
500.0	18934.	-15.5	-34.9	17.	303.7	45.6	
450.0	21518.	-20.6	-38.5	18.	303.6	49.9	
400.0	24340.	-27.2	-43.7	19.	300.3	46.7	
350.0	27446.	-35.1	-50.4	19.	304.0	50.6	
300.0	30907.	-43.9			292.6	48.9	
250.0	34841.	-53.3			290.1	55.2	
200.0	39472.	-60.9			282.6	60.2	
175.0	42179.	-63.4			278.0	66.7	
150.0	45281.	-62.7			279.9	61.3	
125.0	48954.	-64.3			290.2	65.4	
100.0	53414.	-65.3			286.4	52.2	
80.0	57860.	-66.4			291.5	54.0	
70.0	60515.	-65.3			293.4	49.9	
60.0	63634.	-62.1			293.6	31.3	
50.0	67309.	-64.7			293.6	7.3	
40.0	71829.	-60.0			293.6	13.9	

\*\* AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

